



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 6, 2026 – 02:13 PM EDT

PDB ID : 8FC4 / pdb_00008fc4
Title : Crystal structure of the A2058-N6-dimethylated *Thermus thermophilus* 70S ribosome in complex with protein Y, hygromycin A, and erythromycin at 2.45Å resolution
Authors : Chen, C.-W.; Syroegin, E.A.; Svetlov, M.S.; Polikanov, Y.S.
Deposited on : 2022-12-01
Resolution : 2.45 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

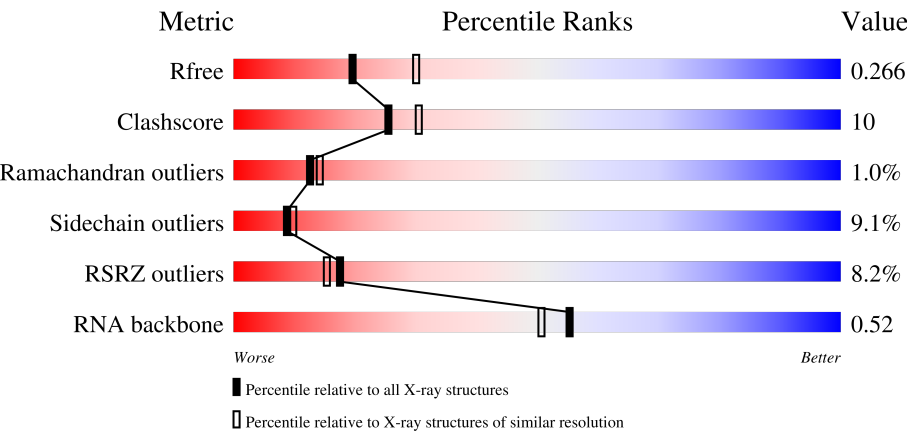
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.45 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



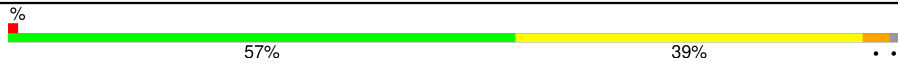
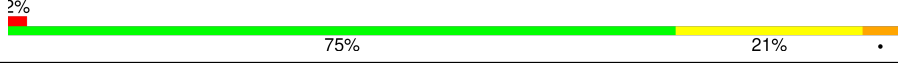
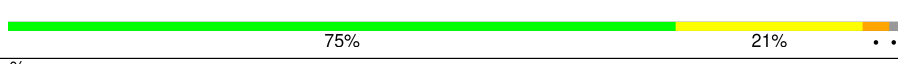
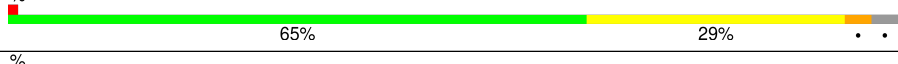
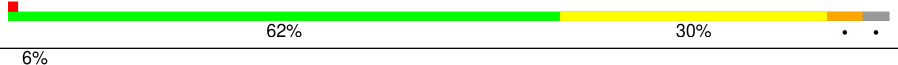
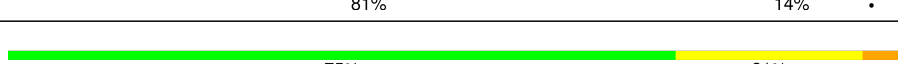
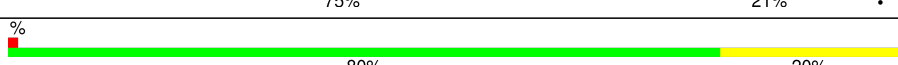
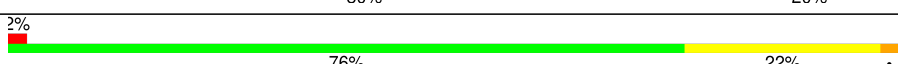
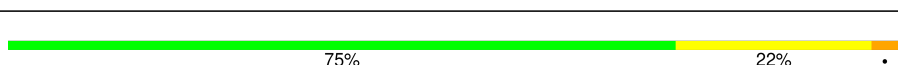
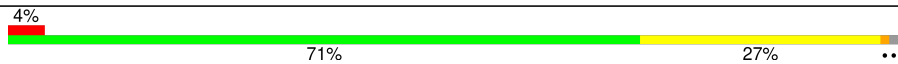
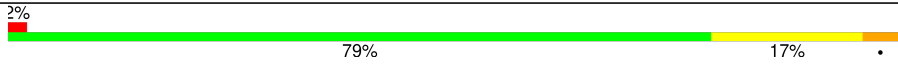
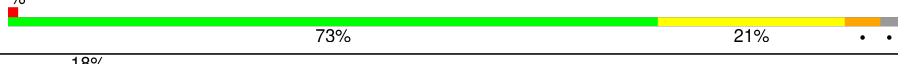
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	1190 (2.46-2.46)
Clashscore	190562	1229 (2.46-2.46)
Ramachandran outliers	187476	1218 (2.46-2.46)
Sidechain outliers	187428	1218 (2.46-2.46)
RSRZ outliers	180081	1190 (2.46-2.46)
RNA backbone	3983	1023 (2.72-2.20)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	1A	2915	
1	2A	2915	
2	1B	121	

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Mol	Chain	Length	Quality of chain
2	2B	121	
3	1D	276	
3	2D	276	
4	1E	206	
4	2E	206	
5	1F	210	
5	2F	210	
6	1G	182	
6	2G	182	
7	1H	180	
7	2H	180	
8	1I	148	
8	2I	148	
9	1N	140	
9	2N	140	
10	1O	122	
10	2O	122	
11	1P	150	
11	2P	150	
12	1Q	141	
12	2Q	141	
13	1R	118	
13	2R	118	
14	1S	112	
14	2S	112	

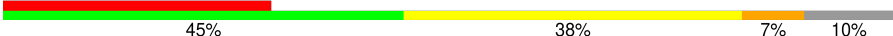
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Mol	Chain	Length	Quality of chain
15	1T	146	
15	2T	146	
16	1U	118	
16	2U	118	
17	1V	101	
17	2V	101	
18	1W	113	
18	2W	113	
19	1X	96	
19	2X	96	
20	1Y	110	
20	2Y	110	
21	1Z	206	
21	2Z	206	
22	10	85	
22	20	85	
23	11	98	
23	21	98	
24	12	72	
24	22	72	
25	13	60	
25	23	60	
26	14	71	
26	24	71	
27	15	60	

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Mol	Chain	Length	Quality of chain
27	25	60	
28	16	54	
28	26	54	
29	17	49	
29	27	49	
30	18	65	
30	28	65	
31	19	37	
31	29	37	
32	1a	1521	
32	2a	1521	
33	1b	256	
33	2b	256	
34	1c	239	
34	2c	239	
35	1d	209	
35	2d	209	
36	1e	162	
36	2e	162	
37	1f	101	
37	2f	101	
38	1g	156	
38	2g	156	
39	1h	138	
39	2h	138	

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Mol	Chain	Length	Quality of chain
40	1i	128	
40	2i	128	
41	1j	105	
41	2j	105	
42	1k	129	
42	2k	129	
43	1l	132	
43	2l	132	
44	1m	126	
44	2m	126	
45	1n	61	
45	2n	61	
46	1o	89	
46	2o	89	
47	1p	88	
47	2p	88	
48	1q	105	
48	2q	105	
49	1r	88	
49	2r	88	
50	1s	93	
50	2s	93	
51	1t	106	
51	2t	106	
52	1u	27	

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Mol	Chain	Length	Quality of chain
52	2u	27	
53	1y	113	
53	2y	113	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
54	MG	2a	3027	-	-	-	X
57	MPD	1a	1882	-	-	X	-

2 Entry composition [i](#)

There are 61 unique types of molecules in this entry. The entry contains 297328 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	1A	2872	Total	C	N	O	P	0	0	0
			61871	27542	11574	19884	2871			
1	2A	2867	Total	C	N	O	P	0	0	0
			61760	27493	11552	19850	2865			

- Molecule 2 is a RNA chain called 5S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1B	120	Total	C	N	O	P	0	0	0
			2572	1145	476	832	119			
2	2B	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	1D	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	2D	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	1E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	2E	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	1F	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	2F	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	1G	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	2G	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	1H	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	2H	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	1I	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	2I	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	1N	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			
9	2N	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	1O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	2O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	1P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	2P	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	1Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	2Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	1R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	2R	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	1S	110	Total	C	N	O	0	0	0
			877	553	175	149			
14	2S	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	1T	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	2T	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	1U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	2U	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	1V	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	2V	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	1W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	2W	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	1X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	2X	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	1Y	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			
20	2Y	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	1Z	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	2Z	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	10	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	20	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	11	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	21	97	Total	C	N	O	S	0	0	0
			759	478	149	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	12	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	22	70	Total	C	N	O	S	0	0	0
			592	368	119	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	13	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	23	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	14	69	Total	C	N	O	S	0	0	0
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	24	69	Total	C	N	O	S	0	0	0
			536	342	98	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	15	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	25	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	16	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	26	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	17	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	27	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	18	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			
30	28	64	Total	C	N	O	S	0	0	0
			517	331	102	82	2			

- Molecule 31 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	19	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			
31	29	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 32 is a RNA chain called 16S Ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	1a	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	2a	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	1b	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
33	2b	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	1c	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
34	2c	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	1d	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
35	2d	208	Total	C	N	O	S	0	0	0
			1668	1047	330	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	1e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			
36	2e	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	1f	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
37	2f	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	1g	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
38	2g	155	Total	C	N	O	S	0	0	0
			1229	766	241	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	1h	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
39	2h	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	1i	127	Total	C	N	O	0	0	0
			986	625	193	168			
40	2i	126	Total	C	N	O	0	0	0
			966	613	186	167			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	1j	97	Total	C	N	O	0	0	0
			719	446	142	131			
41	2j	96	Total	C	N	O	0	0	0
			710	442	137	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	1k	114	Total	C	N	O	S	0	0	0
			834	520	156	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	2k	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	1l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	2l	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	1m	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	2m	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	1n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
45	2n	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	1o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	2o	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	1p	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	2p	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	1q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	2q	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	1r	68	Total	C	N	O		0	0	0
			555	355	108	92				
49	2r	68	Total	C	N	O		0	0	0
			555	355	108	92				

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	1s	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	2s	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	1t	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	2t	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	1u	23	Total	C	N	O		0	0	0
			199	122	48	29				
52	2u	23	Total	C	N	O		0	0	0
			199	122	48	29				

- Molecule 53 is a protein called Ribosome-associated inhibitor A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	1y	97	Total	C	N	O	S	0	0	0
			764	478	144	139	3			
53	2y	96	Total	C	N	O	S	0	0	0
			749	468	141	137	3			

- Molecule 54 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1A	1025	Total	Mg	0	0
			1025	1025		
54	1B	29	Total	Mg	0	0
			29	29		
54	1D	16	Total	Mg	0	0
			16	16		
54	1E	9	Total	Mg	0	0
			9	9		
54	1F	17	Total	Mg	0	0
			17	17		
54	1G	4	Total	Mg	0	0
			4	4		
54	1H	2	Total	Mg	0	0
			2	2		
54	1N	4	Total	Mg	0	0
			4	4		
54	1O	1	Total	Mg	0	0
			1	1		
54	1P	6	Total	Mg	0	0
			6	6		
54	1Q	5	Total	Mg	0	0
			5	5		
54	1R	4	Total	Mg	0	0
			4	4		
54	1T	4	Total	Mg	0	0
			4	4		
54	1U	9	Total	Mg	0	0
			9	9		
54	1V	6	Total	Mg	0	0
			6	6		
54	1W	2	Total	Mg	0	0
			2	2		
54	1Y	2	Total	Mg	0	0
			2	2		
54	1Z	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	10	8	Total 8	Mg 8	0	0
54	11	6	Total 6	Mg 6	0	0
54	13	4	Total 4	Mg 4	0	0
54	15	8	Total 8	Mg 8	0	0
54	17	5	Total 5	Mg 5	0	0
54	18	2	Total 2	Mg 2	0	0
54	19	2	Total 2	Mg 2	0	0
54	1a	281	Total 281	Mg 281	0	0
54	1b	1	Total 1	Mg 1	0	0
54	1d	3	Total 3	Mg 3	0	0
54	1e	3	Total 3	Mg 3	0	0
54	1f	2	Total 2	Mg 2	0	0
54	1g	3	Total 3	Mg 3	0	0
54	1h	2	Total 2	Mg 2	0	0
54	1i	1	Total 1	Mg 1	0	0
54	1k	1	Total 1	Mg 1	0	0
54	1l	2	Total 2	Mg 2	0	0
54	1m	1	Total 1	Mg 1	0	0
54	1n	1	Total 1	Mg 1	0	0
54	1o	2	Total 2	Mg 2	0	0
54	1t	1	Total 1	Mg 1	0	0

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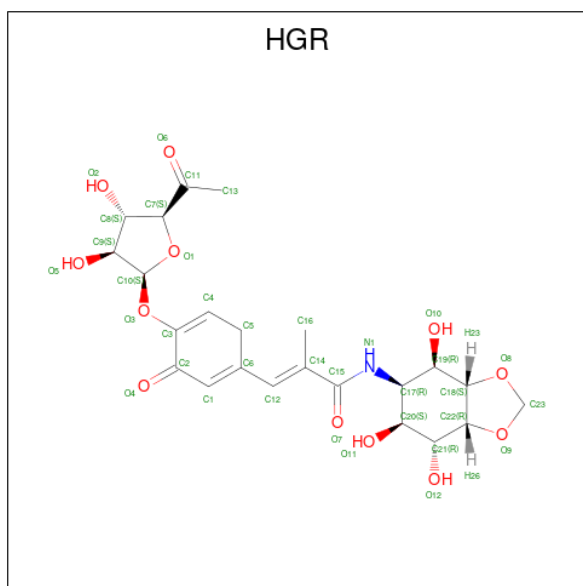
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	1y	2	Total 2	Mg 2	0	0
54	2A	670	Total 670	Mg 670	0	0
54	2B	14	Total 14	Mg 14	0	0
54	2D	7	Total 7	Mg 7	0	0
54	2E	5	Total 5	Mg 5	0	0
54	2F	4	Total 4	Mg 4	0	0
54	2G	1	Total 1	Mg 1	0	0
54	2O	1	Total 1	Mg 1	0	0
54	2P	1	Total 1	Mg 1	0	0
54	2Q	4	Total 4	Mg 4	0	0
54	2R	2	Total 2	Mg 2	0	0
54	2T	4	Total 4	Mg 4	0	0
54	2U	1	Total 1	Mg 1	0	0
54	2V	1	Total 1	Mg 1	0	0
54	2W	3	Total 3	Mg 3	0	0
54	2Y	1	Total 1	Mg 1	0	0
54	20	2	Total 2	Mg 2	0	0
54	21	1	Total 1	Mg 1	0	0
54	23	1	Total 1	Mg 1	0	0
54	25	3	Total 3	Mg 3	0	0
54	27	1	Total 1	Mg 1	0	0

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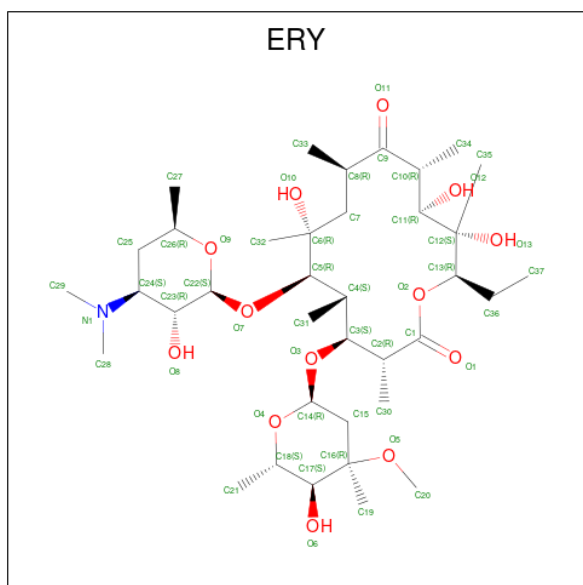
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
54	28	2	Total	Mg	0	0
			2	2		
54	2a	190	Total	Mg	0	0
			190	190		
54	2e	1	Total	Mg	0	0
			1	1		
54	2f	1	Total	Mg	0	0
			1	1		
54	2h	1	Total	Mg	0	0
			1	1		
54	2j	1	Total	Mg	0	0
			1	1		
54	2k	1	Total	Mg	0	0
			1	1		
54	2l	1	Total	Mg	0	0
			1	1		
54	2n	1	Total	Mg	0	0
			1	1		
54	2r	1	Total	Mg	0	0
			1	1		
54	2t	1	Total	Mg	0	0
			1	1		

- Molecule 55 is Hygromycin A (CCD ID: HGR) (formula: $C_{23}H_{29}NO_{12}$) (labeled as "Ligand of Interest" by depositor).



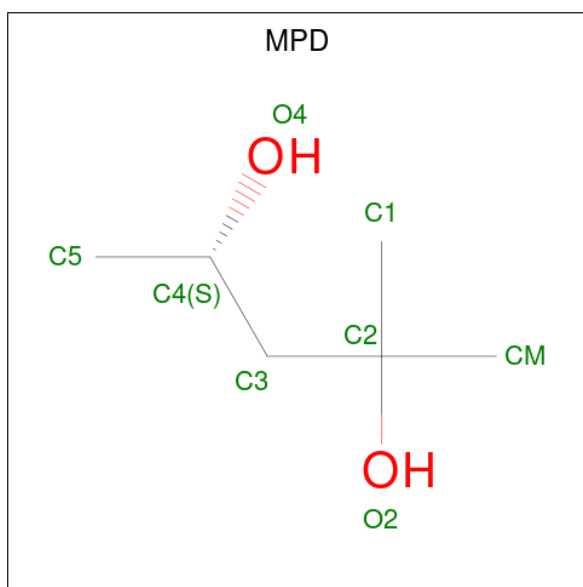
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
55	1A	1	Total	C	N	O	0	0
			36	23	1	12		
55	2A	1	Total	C	N	O	0	0
			36	23	1	12		

- Molecule 56 is ERYTHROMYCIN A (CCD ID: ERY) (formula: $C_{37}H_{67}NO_{13}$) (labeled as "Ligand of Interest" by depositor).



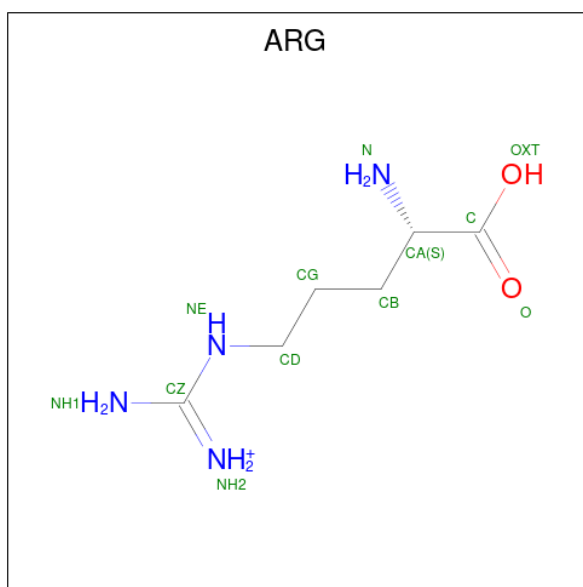
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
56	1A	1	Total	C	N	O	0	0
			51	37	1	13		
56	2A	1	Total	C	N	O	0	0
			51	37	1	13		

- Molecule 57 is (4S)-2-METHYL-2,4-PENTANEDIOL (CCD ID: MPD) (formula: $C_6H_{14}O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
57	1A	1	Total	C	O	0	0
			8	6	2		
57	1T	1	Total	C	O	0	0
			8	6	2		
57	18	1	Total	C	O	0	0
			8	6	2		
57	1a	1	Total	C	O	0	0
			8	6	2		
57	2A	1	Total	C	O	0	0
			8	6	2		
57	2A	1	Total	C	O	0	0
			8	6	2		
57	2A	1	Total	C	O	0	0
			8	6	2		

- Molecule 58 is ARGinine (CCD ID: ARG) (formula: $C_6H_{15}N_4O_2$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
58	1B	1	Total	C	N	O	0	0
			12	6	4	2		
58	1F	1	Total	C	N	O	0	0
			12	6	4	2		

- Molecule 59 is ZINC ION (CCD ID: ZN) (formula: Zn).

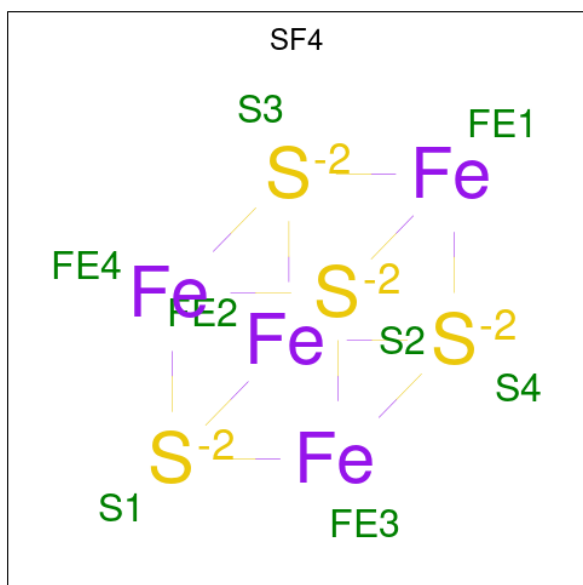
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	1Y	1	Total	Zn	0	0
			1	1		
59	14	1	Total	Zn	0	0
			1	1		
59	15	1	Total	Zn	0	0
			1	1		
59	16	1	Total	Zn	0	0
			1	1		
59	19	1	Total	Zn	0	0
			1	1		
59	1n	1	Total	Zn	0	0
			1	1		
59	2Y	1	Total	Zn	0	0
			1	1		
59	24	1	Total	Zn	0	0
			1	1		
59	25	1	Total	Zn	0	0
			1	1		
59	26	1	Total	Zn	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	29	1	Total	Zn	0	0
			1	1		
59	2n	1	Total	Zn	0	0
			1	1		

- Molecule 60 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
60	1d	1	Total	Fe	S	0	0
			8	4	4		
60	2d	1	Total	Fe	S	0	0
			8	4	4		

- Molecule 61 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1A	3899	Total	O	0	0
			3899	3899		
61	1B	94	Total	O	0	0
			94	94		
61	1D	118	Total	O	0	0
			118	118		
61	1E	83	Total	O	0	0
			83	83		
61	1F	63	Total	O	0	0
			63	63		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	1G	15	Total	O	0	0
			15	15		
61	1H	12	Total	O	0	0
			12	12		
61	1I	7	Total	O	0	0
			7	7		
61	1N	51	Total	O	0	0
			51	51		
61	1O	27	Total	O	0	0
			27	27		
61	1P	64	Total	O	0	0
			64	64		
61	1Q	43	Total	O	0	0
			43	43		
61	1R	34	Total	O	0	0
			34	34		
61	1S	10	Total	O	0	0
			10	10		
61	1T	38	Total	O	0	0
			38	38		
61	1U	42	Total	O	0	0
			42	42		
61	1V	36	Total	O	0	0
			36	36		
61	1W	28	Total	O	0	0
			28	28		
61	1X	27	Total	O	0	0
			27	27		
61	1Y	17	Total	O	0	0
			17	17		
61	1Z	10	Total	O	0	0
			10	10		
61	10	22	Total	O	0	0
			22	22		
61	11	26	Total	O	0	0
			26	26		
61	12	14	Total	O	0	0
			14	14		
61	13	23	Total	O	0	0
			23	23		
61	14	2	Total	O	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	15	25	Total 25	O 25	0	0
61	16	20	Total 20	O 20	0	0
61	17	14	Total 14	O 14	0	0
61	18	24	Total 24	O 24	0	0
61	19	4	Total 4	O 4	0	0
61	1a	454	Total 454	O 454	0	0
61	1c	2	Total 2	O 2	0	0
61	1d	7	Total 7	O 7	0	0
61	1e	4	Total 4	O 4	0	0
61	1f	2	Total 2	O 2	0	0
61	1h	1	Total 1	O 1	0	0
61	1l	2	Total 2	O 2	0	0
61	1m	1	Total 1	O 1	0	0
61	1o	5	Total 5	O 5	0	0
61	1p	4	Total 4	O 4	0	0
61	1y	4	Total 4	O 4	0	0
61	2A	2164	Total 2164	O 2164	0	0
61	2B	45	Total 45	O 45	0	0
61	2D	52	Total 52	O 52	0	0
61	2E	31	Total 31	O 31	0	0
61	2F	23	Total 23	O 23	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	2G	7	Total 7	O 7	0	0
61	2H	1	Total 1	O 1	0	0
61	2I	4	Total 4	O 4	0	0
61	2N	5	Total 5	O 5	0	0
61	2O	19	Total 19	O 19	0	0
61	2P	26	Total 26	O 26	0	0
61	2Q	15	Total 15	O 15	0	0
61	2R	18	Total 18	O 18	0	0
61	2S	5	Total 5	O 5	0	0
61	2T	11	Total 11	O 11	0	0
61	2U	15	Total 15	O 15	0	0
61	2V	6	Total 6	O 6	0	0
61	2W	18	Total 18	O 18	0	0
61	2X	8	Total 8	O 8	0	0
61	2Y	2	Total 2	O 2	0	0
61	2Z	9	Total 9	O 9	0	0
61	20	9	Total 9	O 9	0	0
61	21	17	Total 17	O 17	0	0
61	22	1	Total 1	O 1	0	0
61	23	3	Total 3	O 3	0	0
61	24	1	Total 1	O 1	0	0

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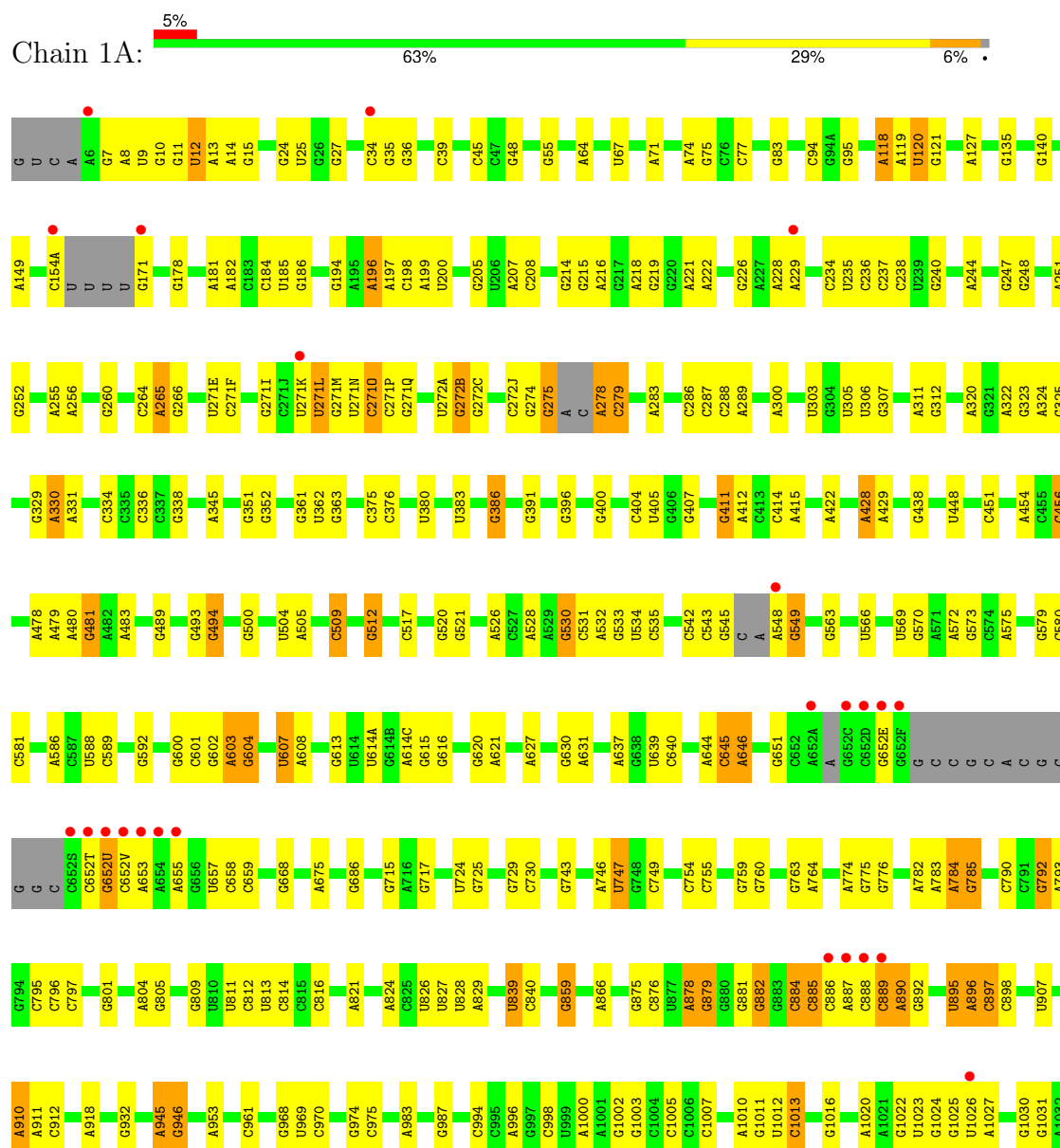
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	25	7	Total 7	O 7	0	0
61	26	4	Total 4	O 4	0	0
61	27	6	Total 6	O 6	0	0
61	28	8	Total 8	O 8	0	0
61	29	1	Total 1	O 1	0	0
61	2a	322	Total 322	O 322	0	0
61	2d	3	Total 3	O 3	0	0
61	2e	1	Total 1	O 1	0	0
61	2f	3	Total 3	O 3	0	0
61	2j	2	Total 2	O 2	0	0
61	2l	2	Total 2	O 2	0	0
61	2n	1	Total 1	O 1	0	0
61	2o	2	Total 2	O 2	0	0
61	2p	1	Total 1	O 1	0	0
61	2q	2	Total 2	O 2	0	0
61	2r	3	Total 3	O 3	0	0
61	2t	2	Total 2	O 2	0	0
61	2u	1	Total 1	O 1	0	0
61	2y	2	Total 2	O 2	0	0

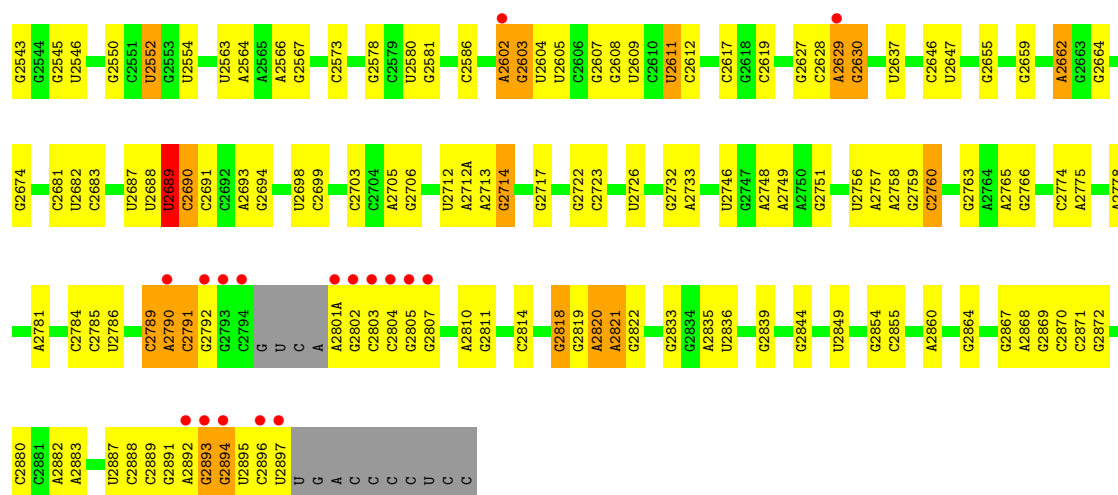
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

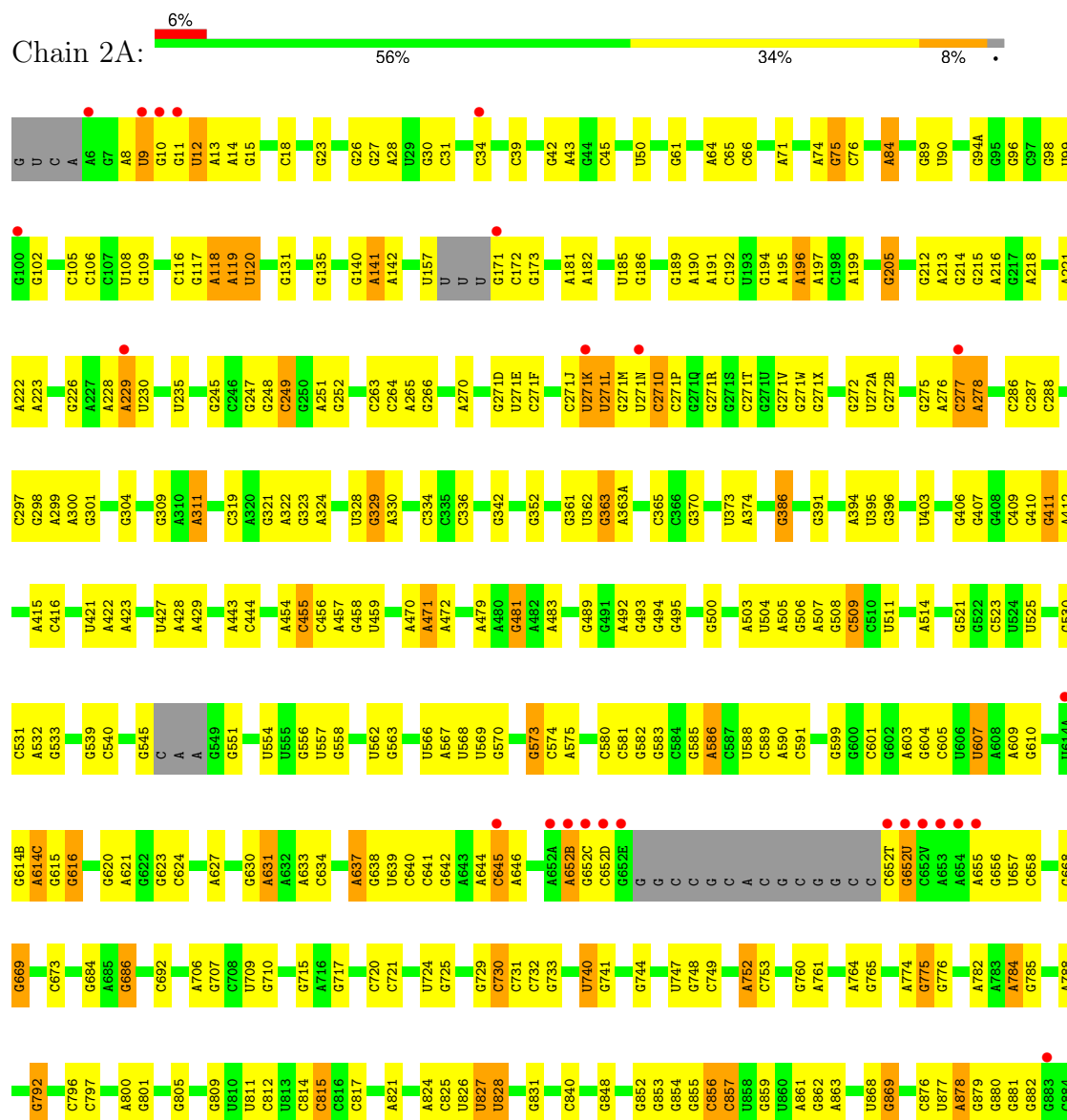
• Molecule 1: 23S Ribosomal RNA

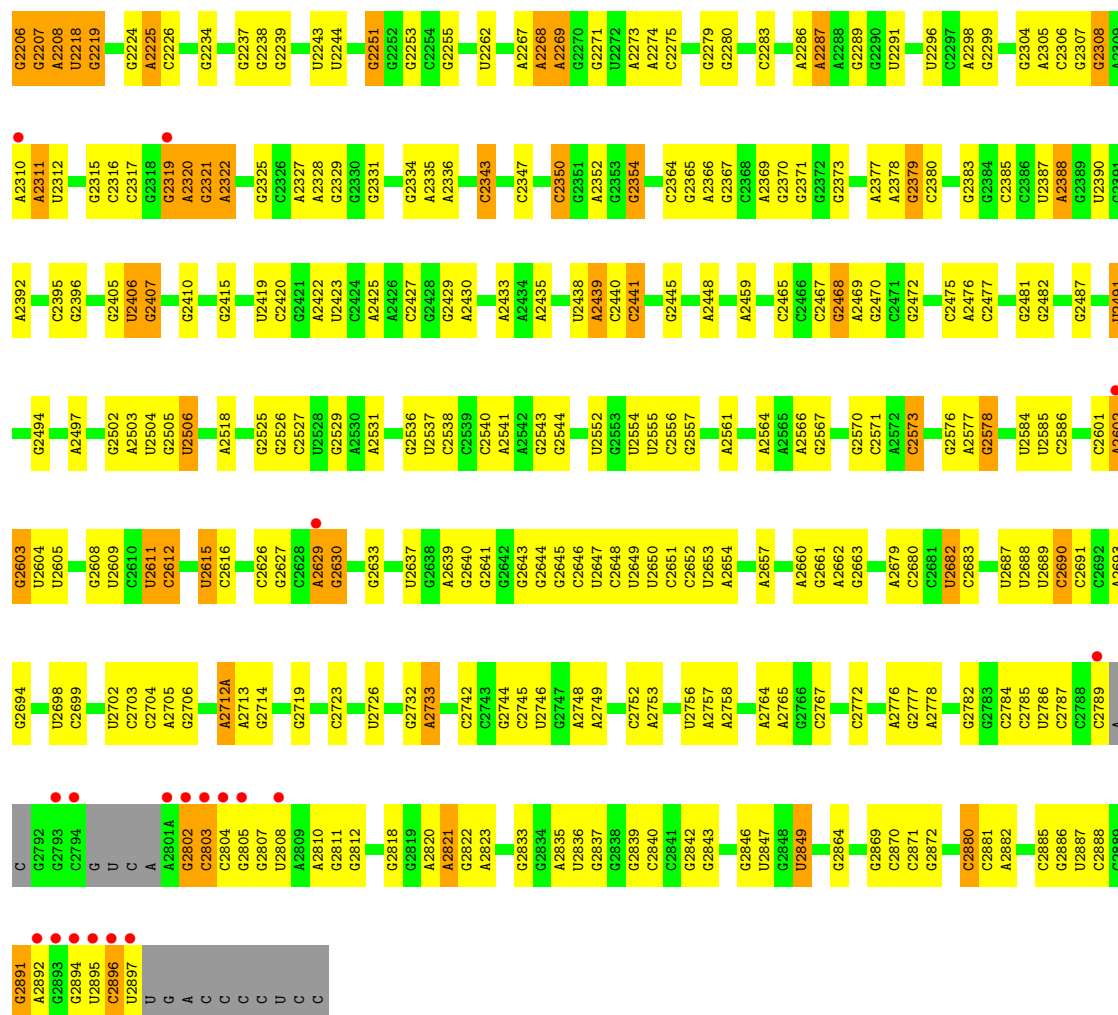


G2405	U2406	G2407	A2411	G2417	A2418	U2419	A2422	G2423	G2424	A2425	A2426	G2427	G2428	G2429	U2430	U2431	A2435	A2439	C2440	C2441	C2442	C2443	G2447	A2448	G2458	G2468	A2469	G2470	A2476	G2482	U2491	G2502	A2503	G2504	G2505	U2506	A2518	G2529	G2535	G2536	U2537	C2538	C2539																
A2305	G2308	G2308	U2312	G2313	G2314	G2315	G2316	G2317	G2318	A2319	A2320	G2325	G2326	A2327	A2328	G2329	G2330	G2331	G2334	A2335	A2336	G2341	G2342	G2345	G2346	G2347	U2348	G2349	C2350	C2355	G2358	C2364	G2365	G2372	G2373	A2377	A2378	G2379	C2380	G2381	G2382	G2383	G2384	C2385	U2390	A2393													
G2190	G2191	G2192	A2198	U2203	G2205	G2206	G2207	A2208	G2223	G2224	A2225	G2226	G2227	G2228	U2233	G2238	G2239	U2243	U2244	G2248	G2251	G2258	A2267	A2268	A2273	A2274	G2277	G2280	G2283	G2284	G2285	A2286	A2287	A2288	G2289	G2290	U2291	G2292	G2293	A2298	G2299	U2390	G2303	G2304															
U2130	G2131	U2132	G2133	A2134	A2135	G2136	G2137	G2138	G2139	G2140	G2141	G2142	U2143	U2144	G2145	G2146	G2147	G2148	G2149	U2150	G2151	G2152	G2153	G2154	G2155	G2156	A2157	G2158	G2159	G2160	G2161	G2162	G2163	G2164	G2165	G2166	U2167	G2168	A2169	A2170	G2171	U2172	U2173	G2174	G2175	A2176	G2177	G2178	G2179	U2180	G2181	G2182	G2183	G2184	G2185	G2186	U2187	G2188	U2189
C2050	A2051	G2052	G2053	A2054	C2055	G2056	A2057	A2058	A2059	A2060	G2061	C2064	C2065	G2069	G2070	A2071	U2079	U2086	G2087	C2093	U2096	G2097	U2098	U2099	G2100	G2101	U2102	C2103	G2106	G2107	C2108	U2109	G2110	G2111	G2112	U2113	A2114	G2115	G2116	U2117	U2118	A2119	G2120	G2121	U2122	G2123	U2124	G2125	A2126	G2127	G2128	G2129	C2130						
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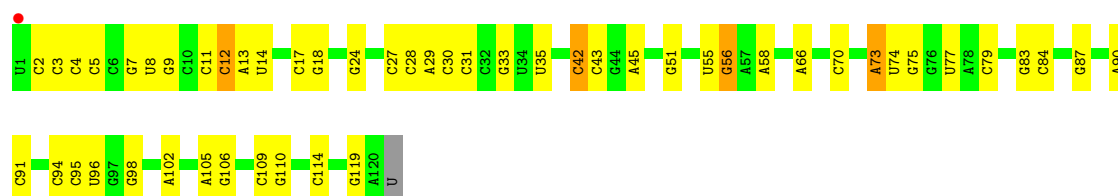
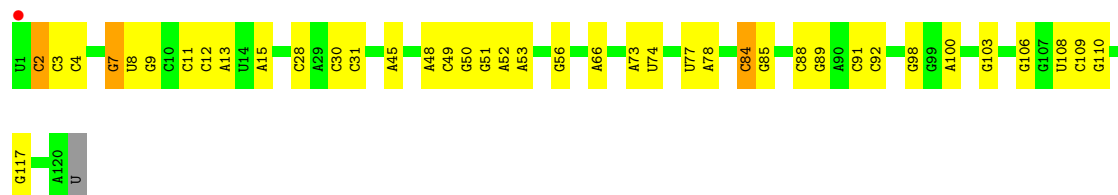


• Molecule 1: 23S Ribosomal RNA

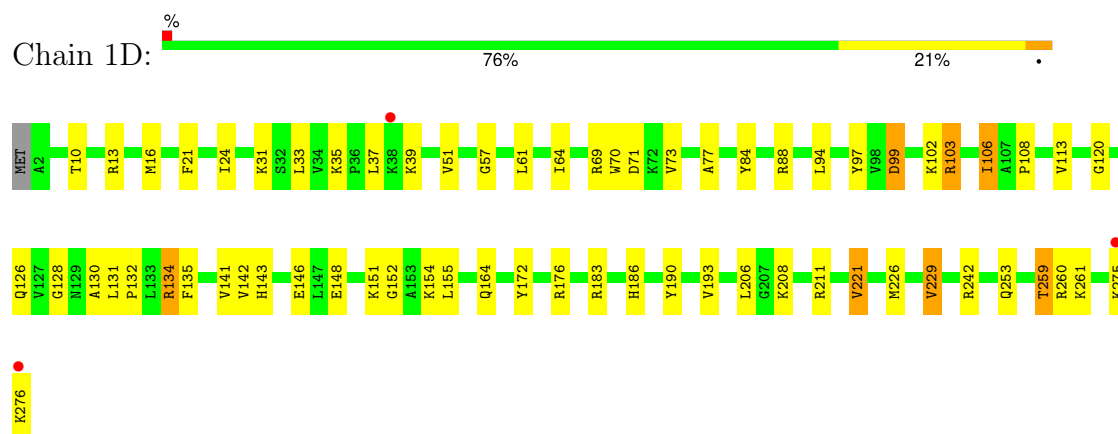




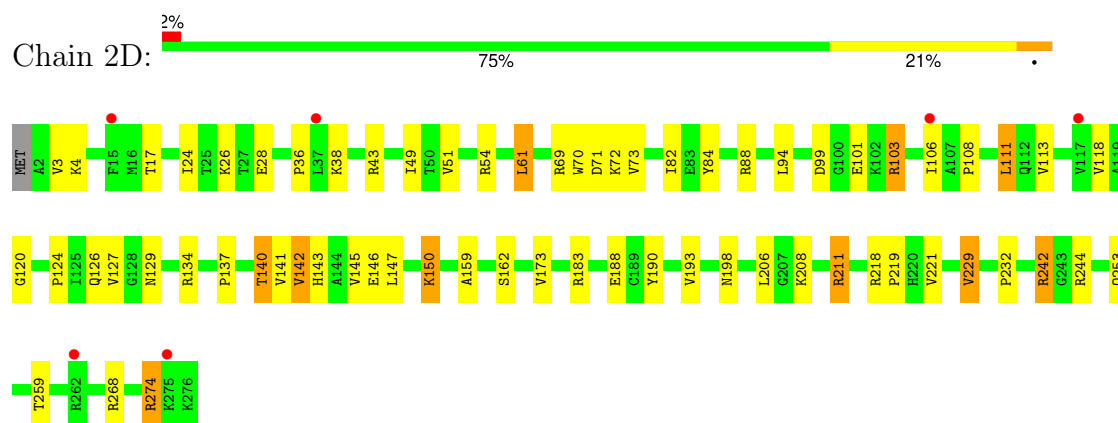
• Molecule 2: 5S Ribosomal RNA



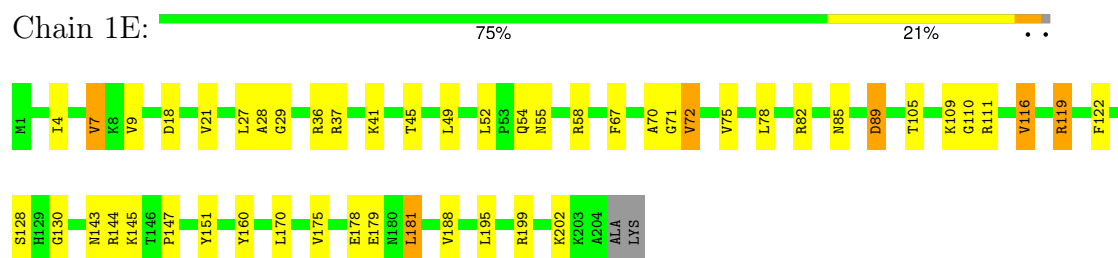
- Molecule 3: 50S ribosomal protein L2



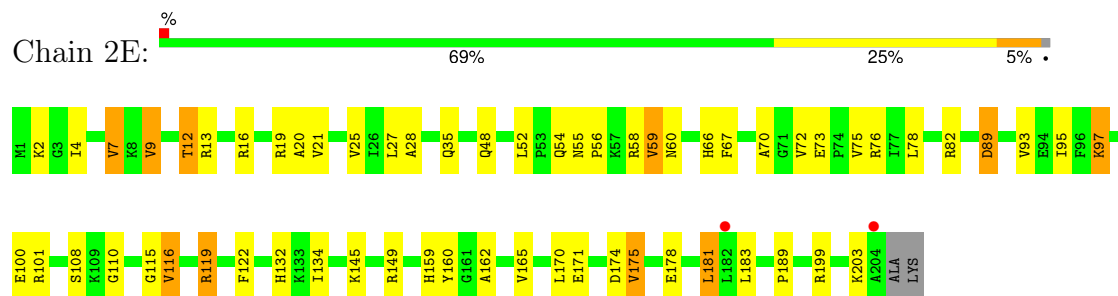
- Molecule 3: 50S ribosomal protein L2



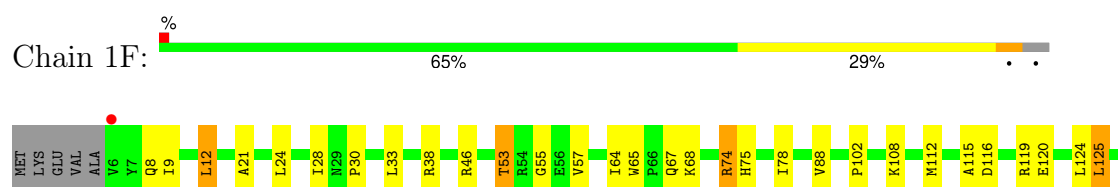
- Molecule 4: 50S ribosomal protein L3



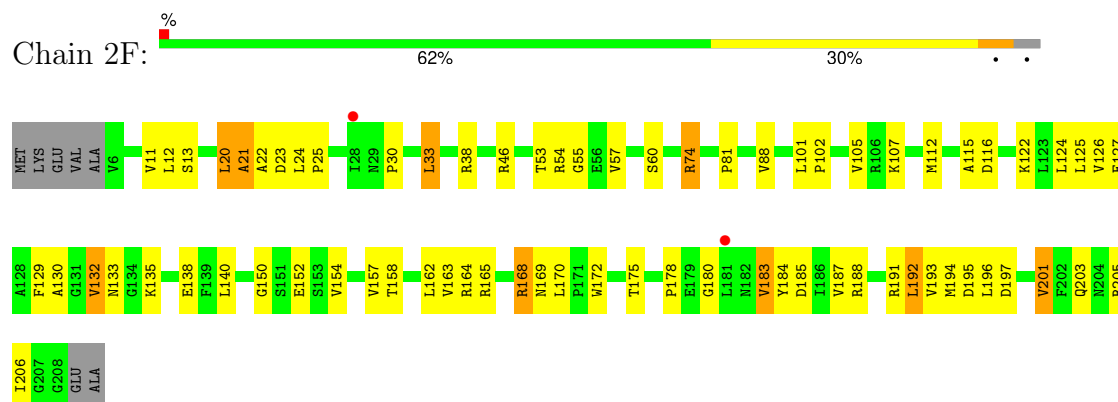
- Molecule 4: 50S ribosomal protein L3



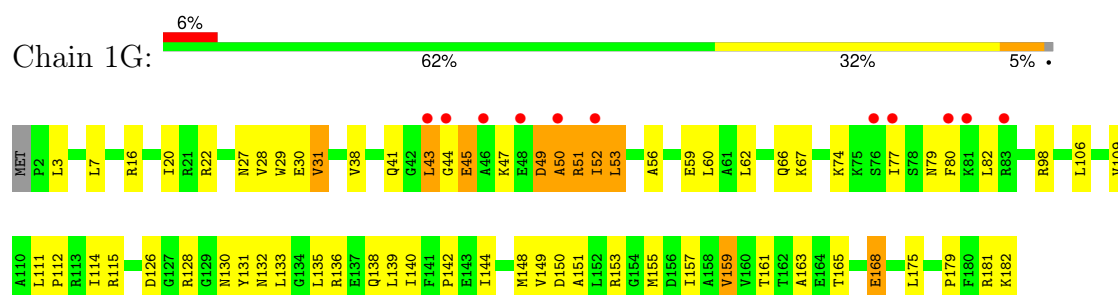
- Molecule 5: 50S ribosomal protein L4



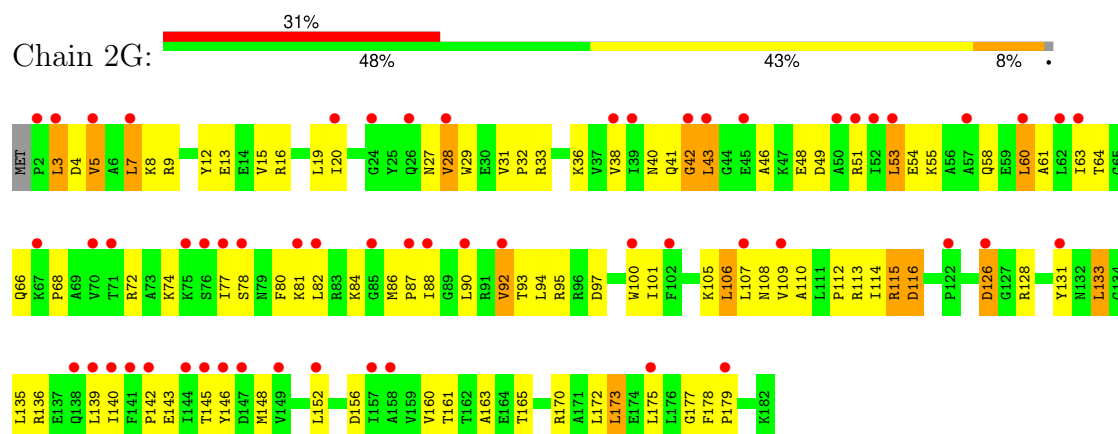
• Molecule 5: 50S ribosomal protein L4



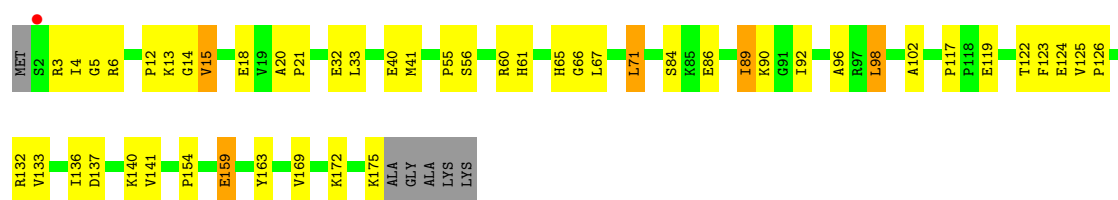
• Molecule 6: 50S ribosomal protein L5



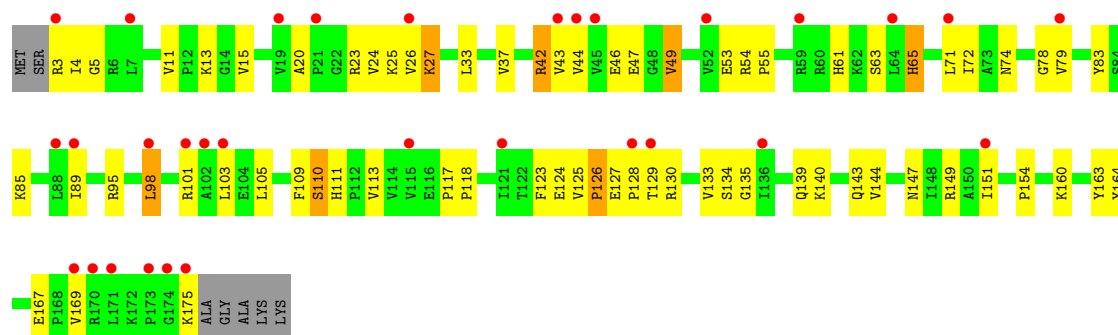
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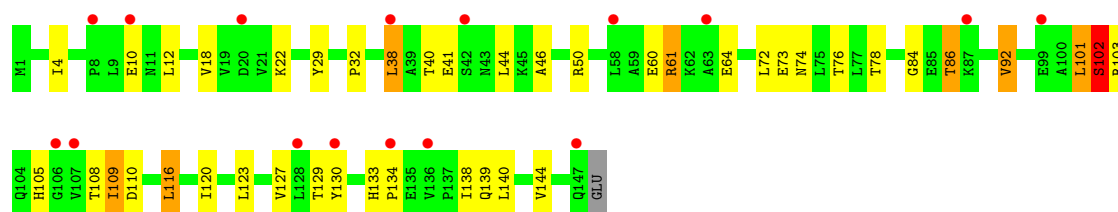
• Molecule 7: 50S ribosomal protein L6



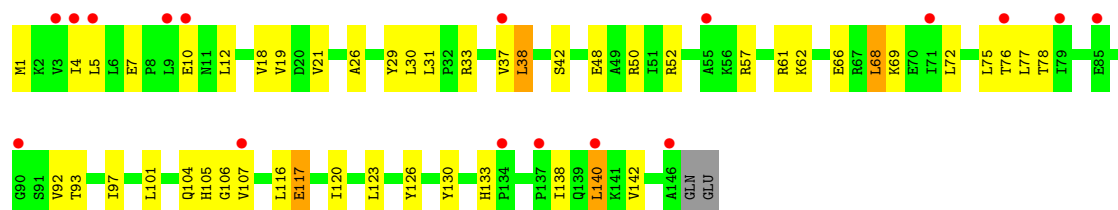
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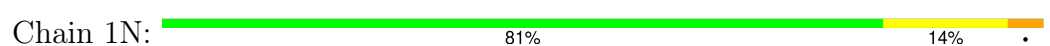
• Molecule 8: 50S ribosomal protein L9

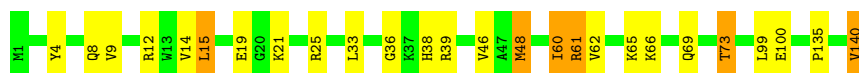


• Molecule 8: 50S ribosomal protein L9

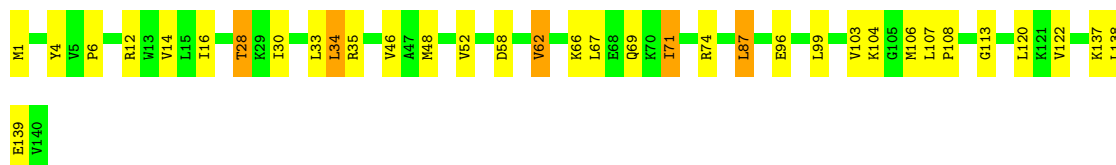
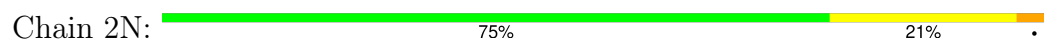


• Molecule 9: 50S ribosomal protein L13

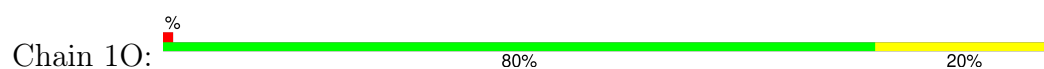




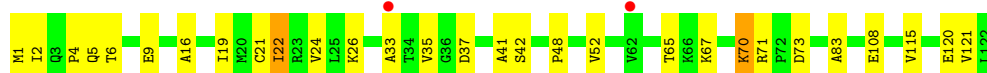
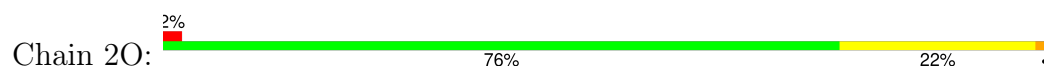
- Molecule 9: 50S ribosomal protein L13



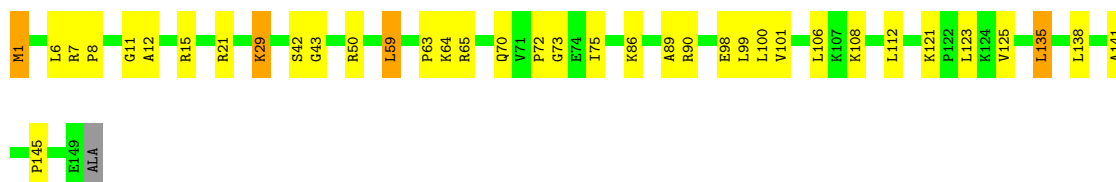
- Molecule 10: 50S ribosomal protein L14



- Molecule 10: 50S ribosomal protein L14



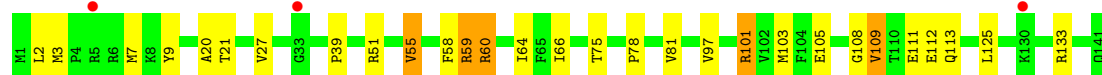
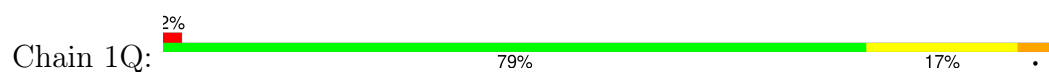
- Molecule 11: 50S ribosomal protein L15



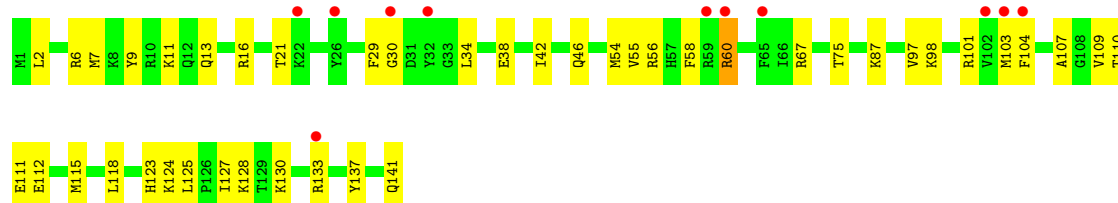
- Molecule 11: 50S ribosomal protein L15



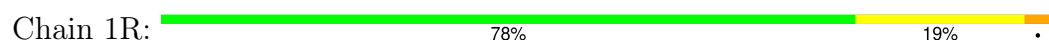
- Molecule 12: 50S ribosomal protein L16



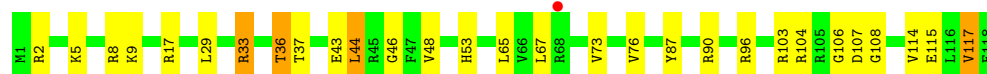
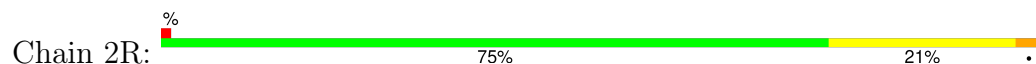
- Molecule 12: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L17



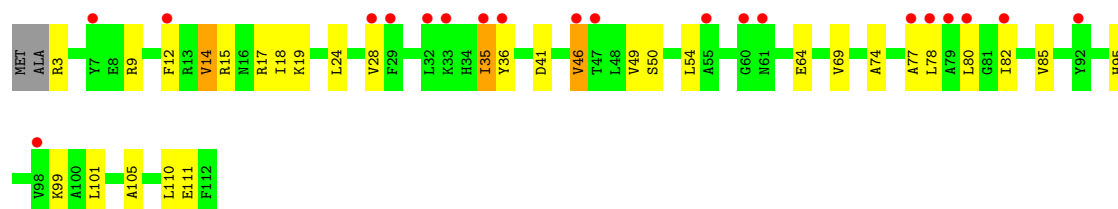
- Molecule 13: 50S ribosomal protein L17



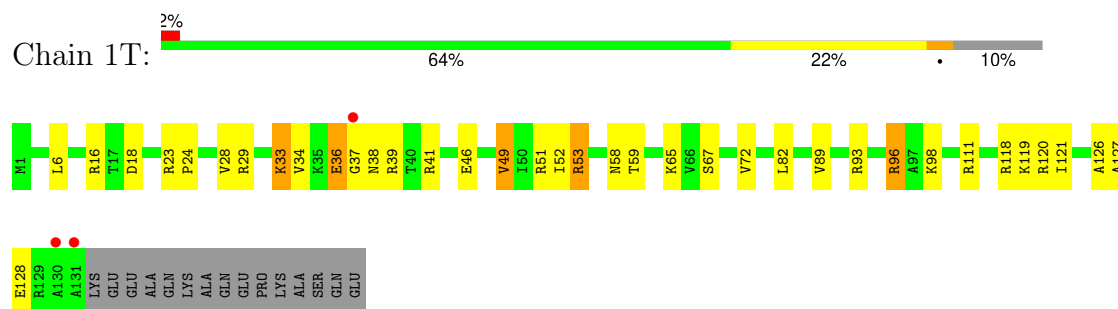
- Molecule 14: 50S ribosomal protein L18



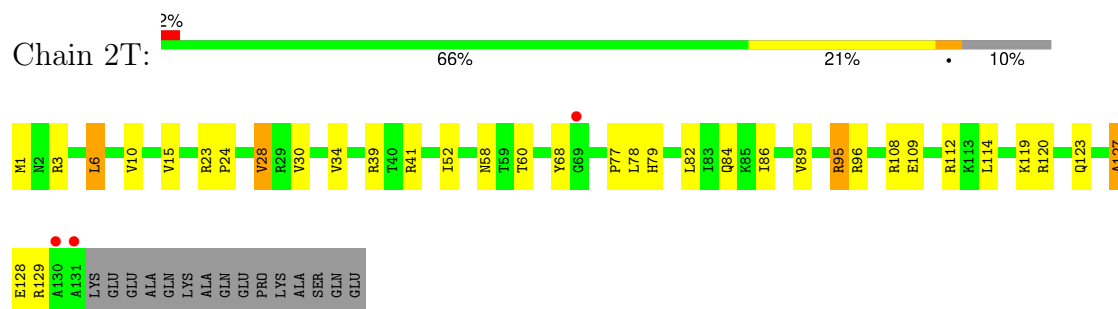
- Molecule 14: 50S ribosomal protein L18



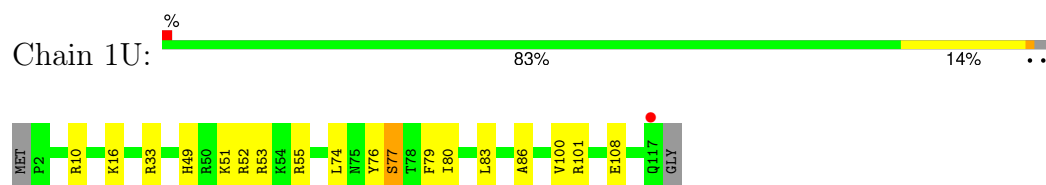
- Molecule 15: 50S ribosomal protein L19



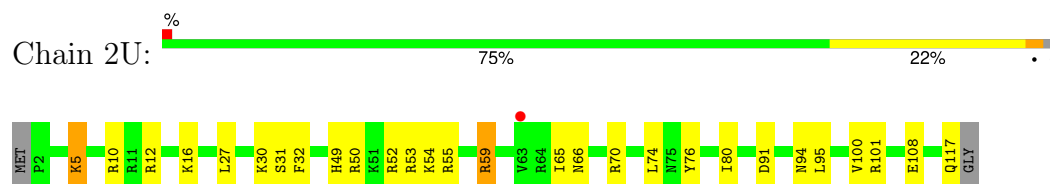
- Molecule 15: 50S ribosomal protein L19



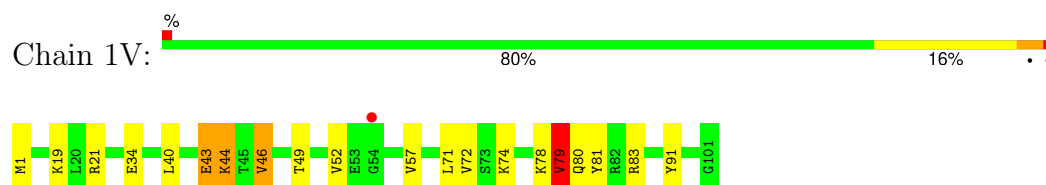
- Molecule 16: 50S ribosomal protein L20



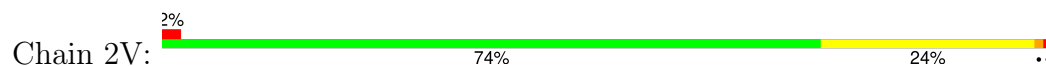
- Molecule 16: 50S ribosomal protein L20

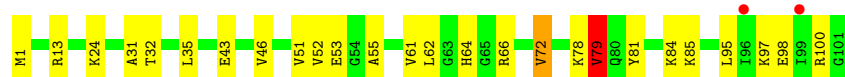


- Molecule 17: 50S ribosomal protein L21

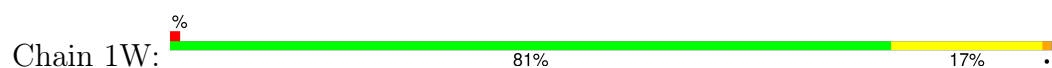


- Molecule 17: 50S ribosomal protein L21

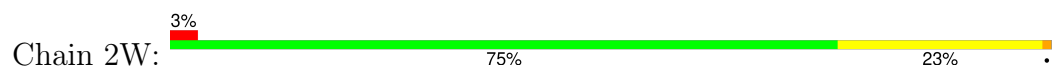




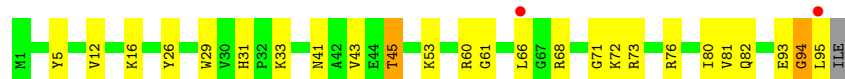
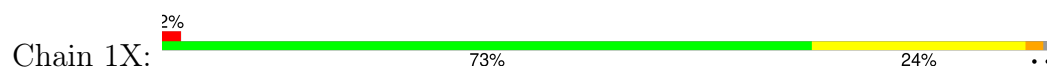
- Molecule 18: 50S ribosomal protein L22



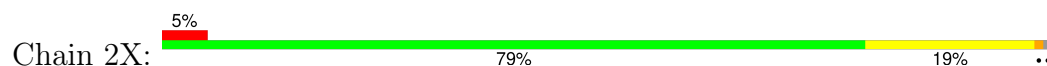
- Molecule 18: 50S ribosomal protein L22



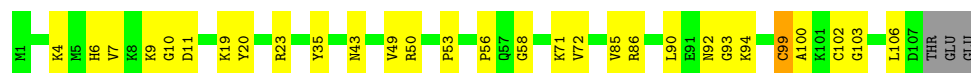
- Molecule 19: 50S ribosomal protein L23



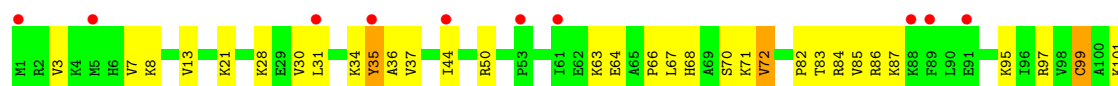
- Molecule 19: 50S ribosomal protein L23



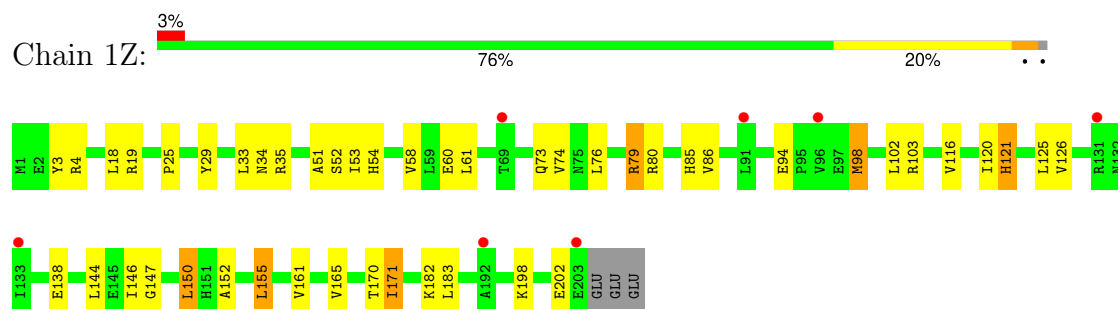
- Molecule 20: 50S ribosomal protein L24



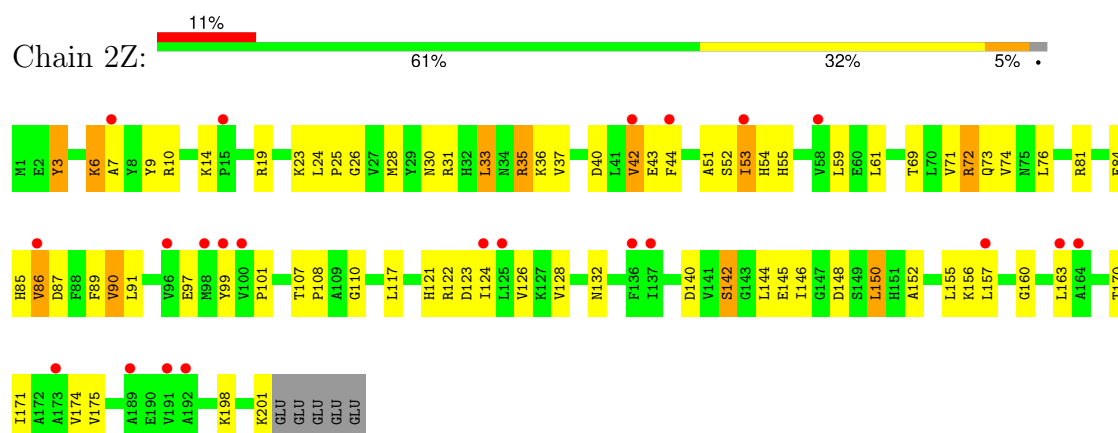
- Molecule 20: 50S ribosomal protein L24



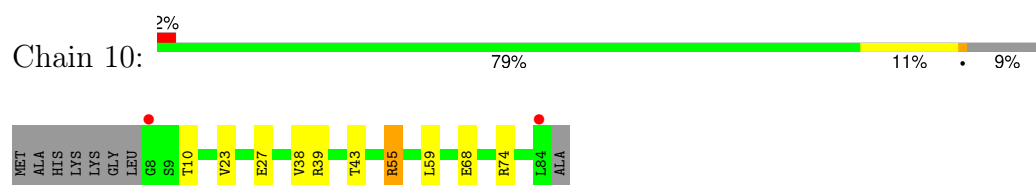
- Molecule 21: 50S ribosomal protein L25



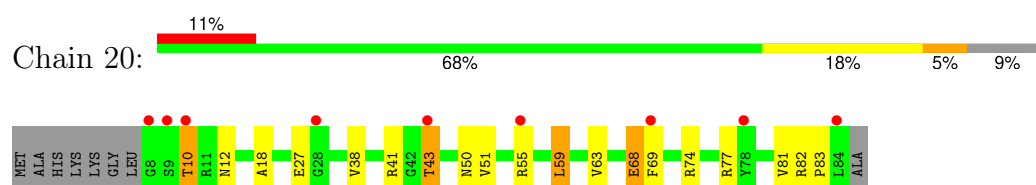
- Molecule 21: 50S ribosomal protein L25



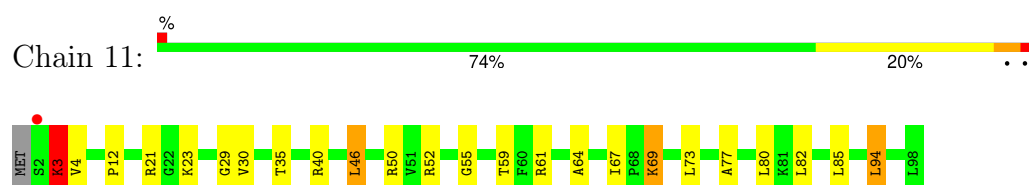
- Molecule 22: 50S ribosomal protein L27



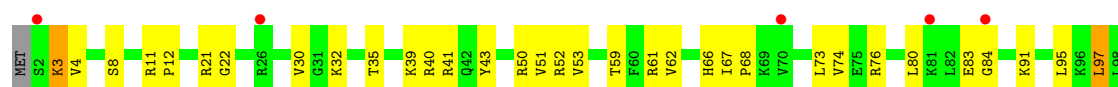
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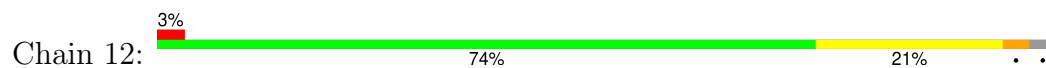
- Molecule 23: 50S ribosomal protein L28



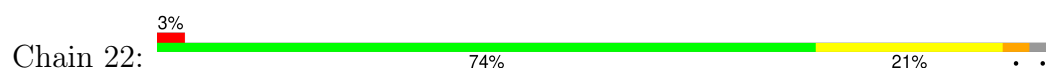
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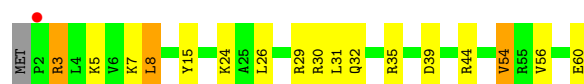
- Molecule 24: 50S ribosomal protein L29



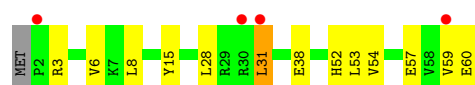
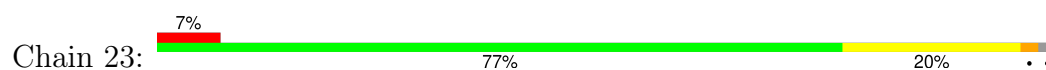
- Molecule 24: 50S ribosomal protein L29



- Molecule 25: 50S ribosomal protein L30



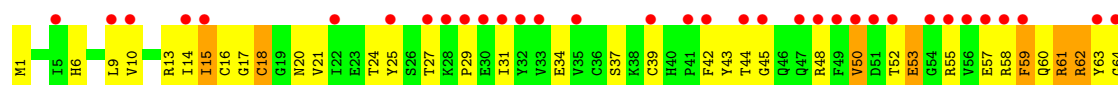
- Molecule 25: 50S ribosomal protein L30

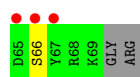


- Molecule 26: 50S ribosomal protein L31

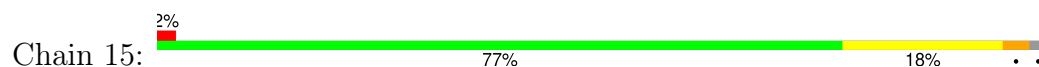


- Molecule 26: 50S ribosomal protein L31





- Molecule 27: 50S ribosomal protein L32



- Molecule 27: 50S ribosomal protein L32



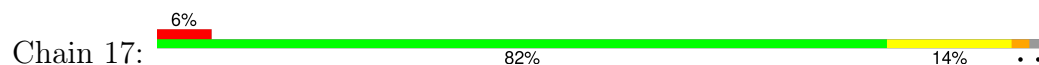
- Molecule 28: 50S ribosomal protein L33



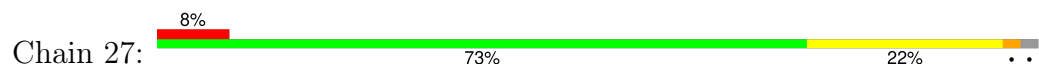
- Molecule 28: 50S ribosomal protein L33



- Molecule 29: 50S ribosomal protein L34



- Molecule 29: 50S ribosomal protein L34

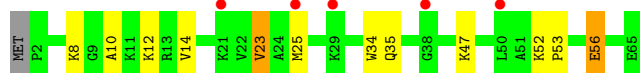
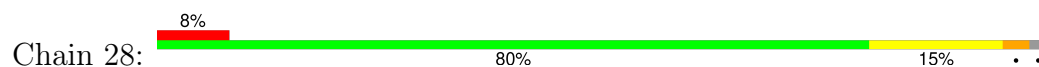


- Molecule 30: 50S ribosomal protein L35

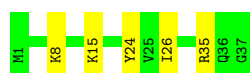
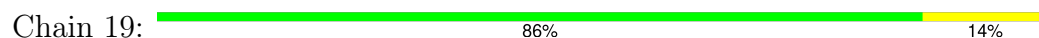




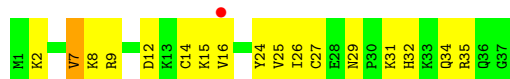
- Molecule 30: 50S ribosomal protein L35



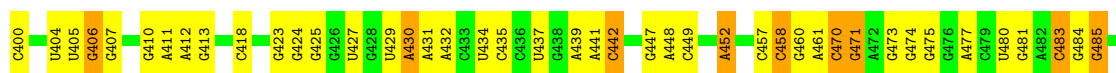
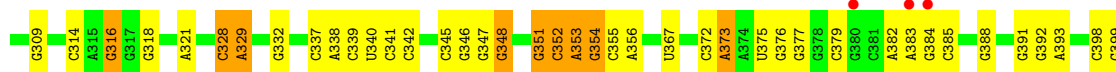
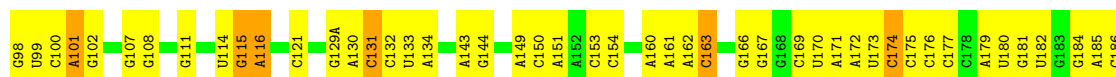
- Molecule 31: 50S ribosomal protein L36



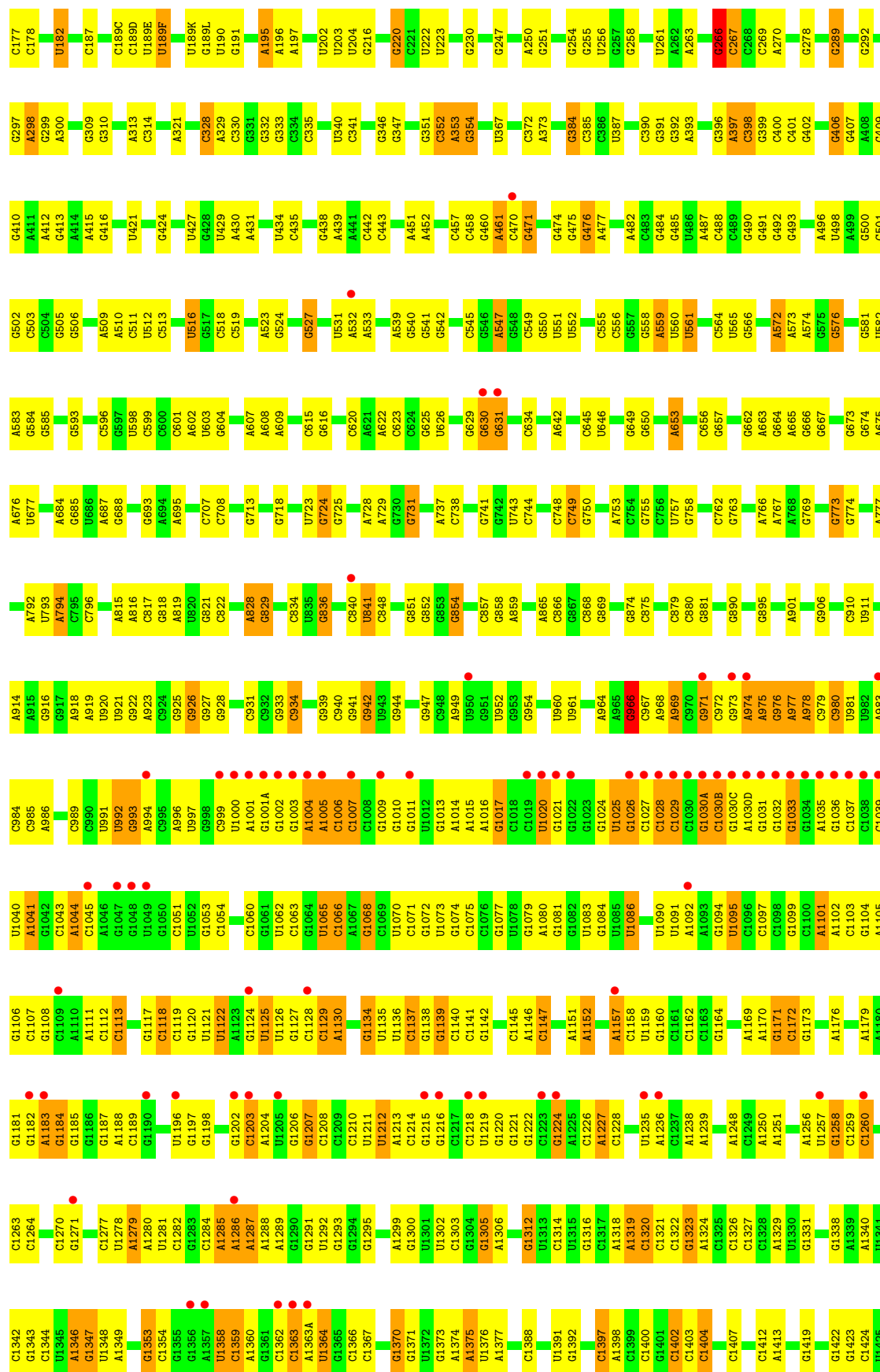
- Molecule 31: 50S ribosomal protein L36

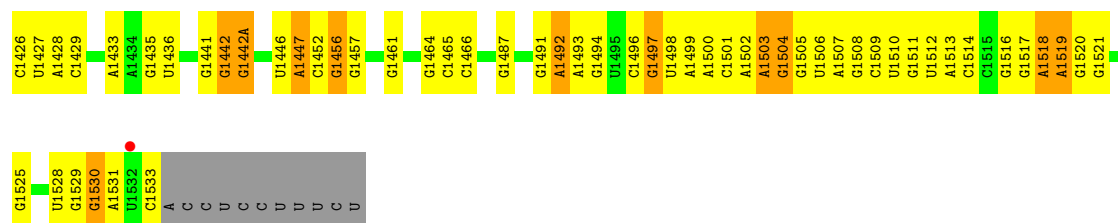


- Molecule 32: 16S Ribosomal RNA

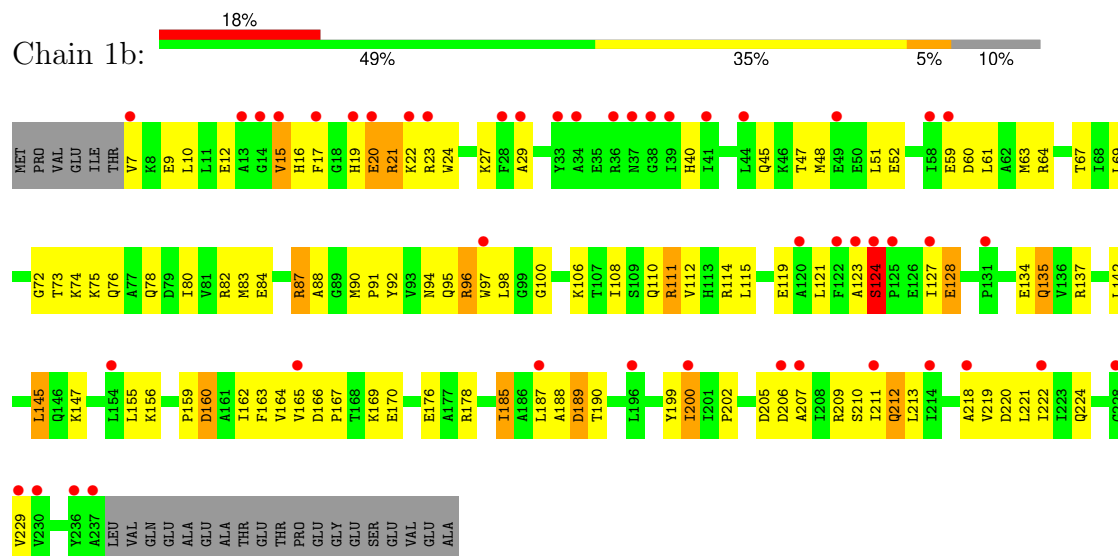




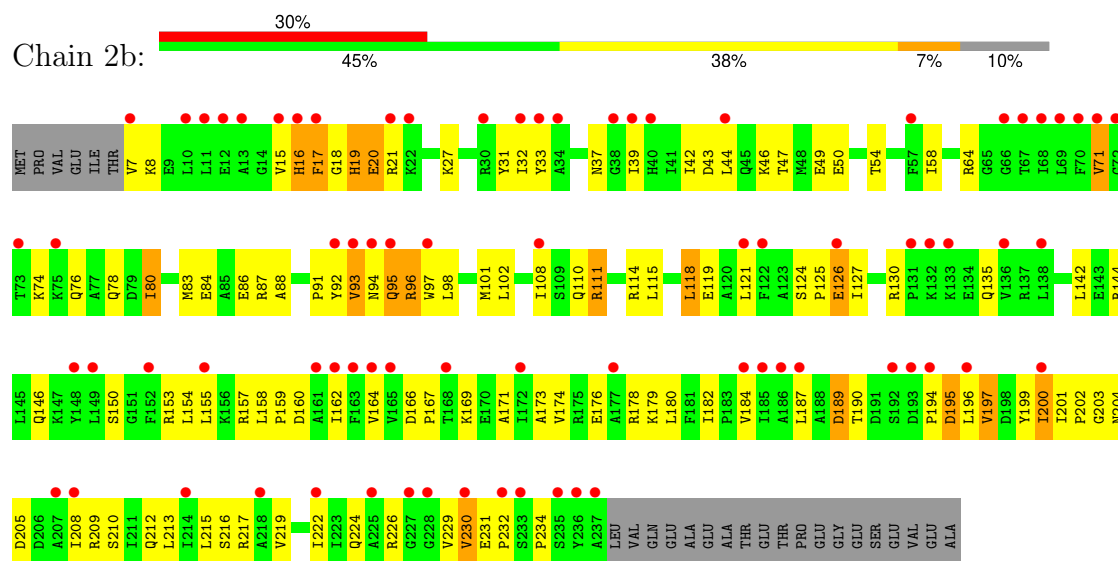




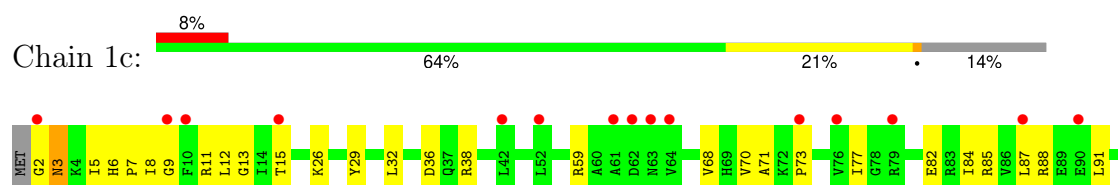
• Molecule 33: 30S ribosomal protein S2

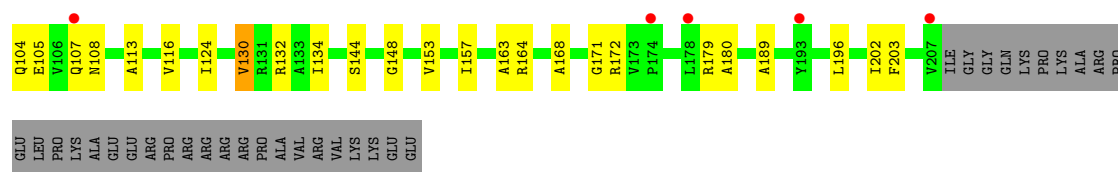


• Molecule 33: 30S ribosomal protein S2

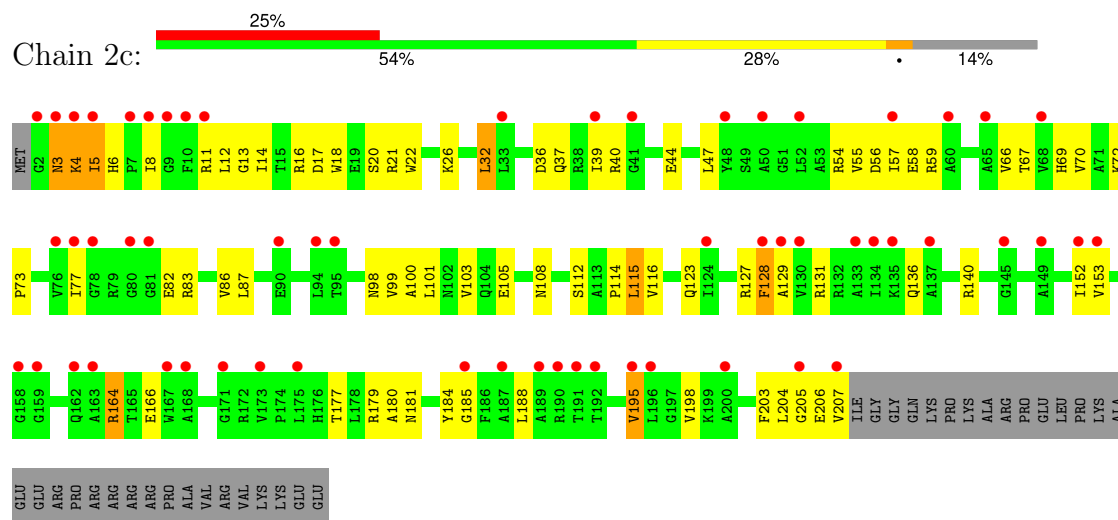


• Molecule 34: 30S ribosomal protein S3

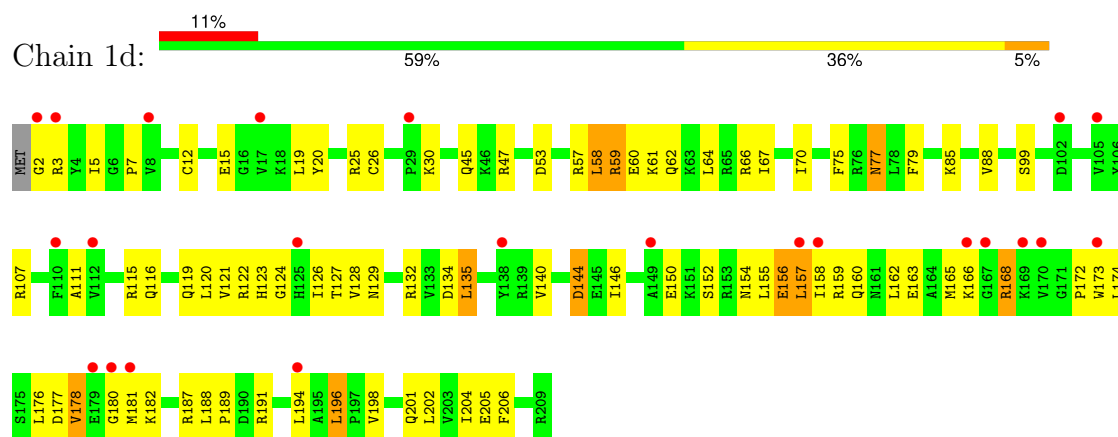




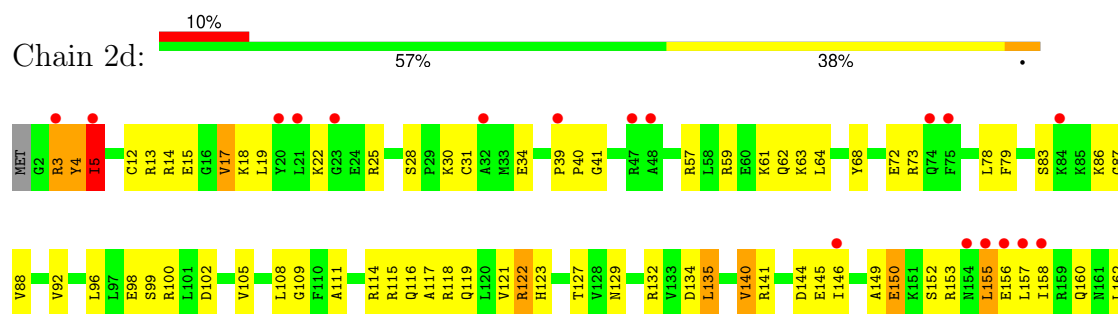
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4

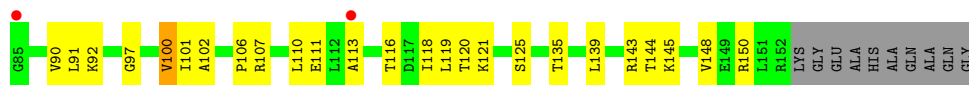
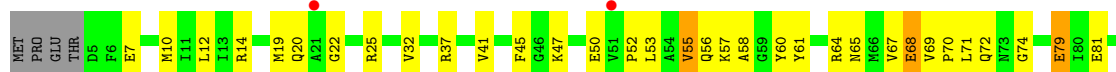


• Molecule 35: 30S ribosomal protein S4

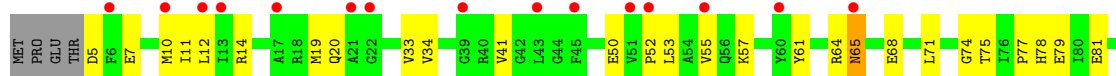




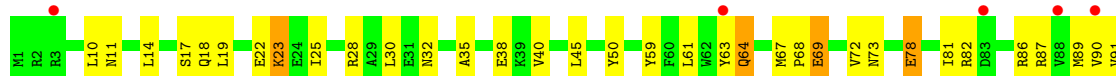
• Molecule 36: 30S ribosomal protein S5



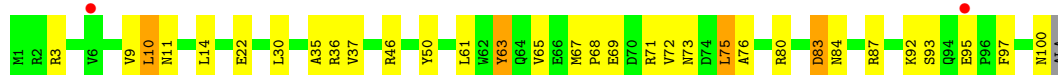
• Molecule 36: 30S ribosomal protein S5



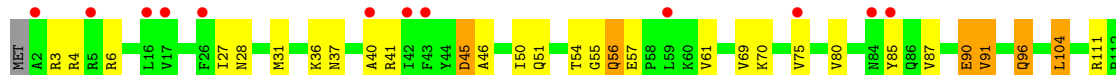
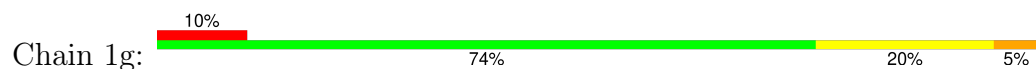
• Molecule 37: 30S ribosomal protein S6



• Molecule 37: 30S ribosomal protein S6

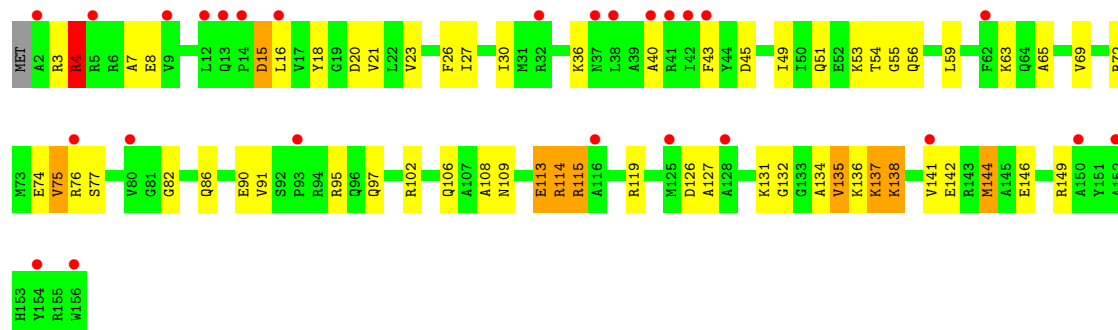


• Molecule 38: 30S ribosomal protein S7

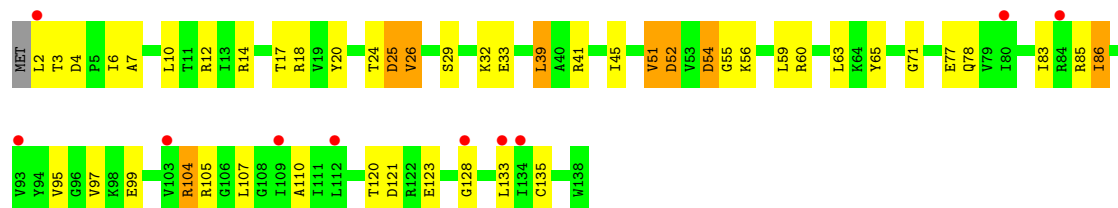




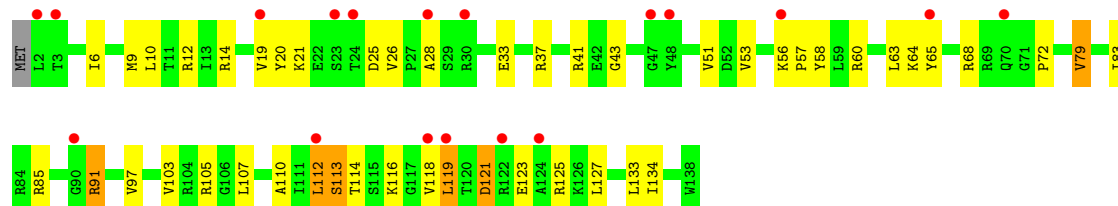
• Molecule 38: 30S ribosomal protein S7



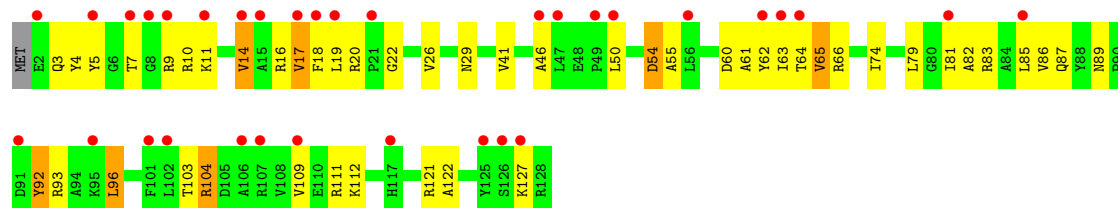
• Molecule 39: 30S ribosomal protein S8



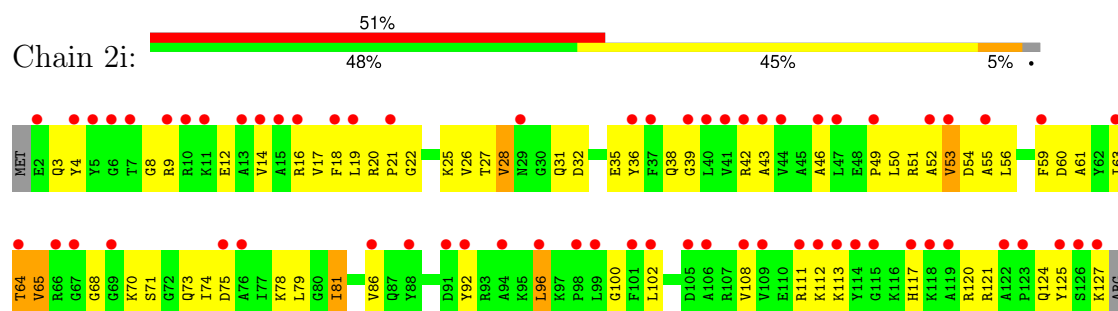
• Molecule 39: 30S ribosomal protein S8



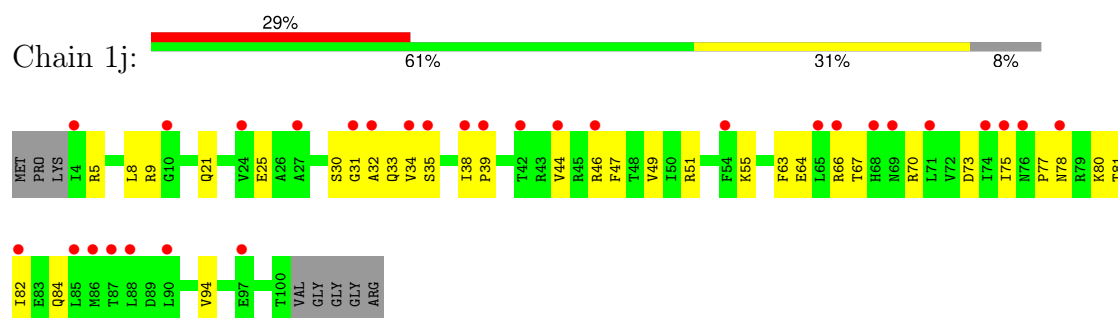
• Molecule 40: 30S ribosomal protein S9



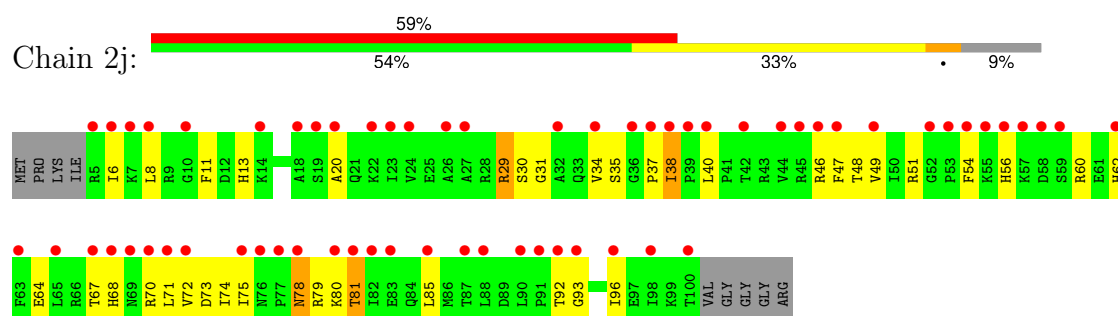
- Molecule 40: 30S ribosomal protein S9



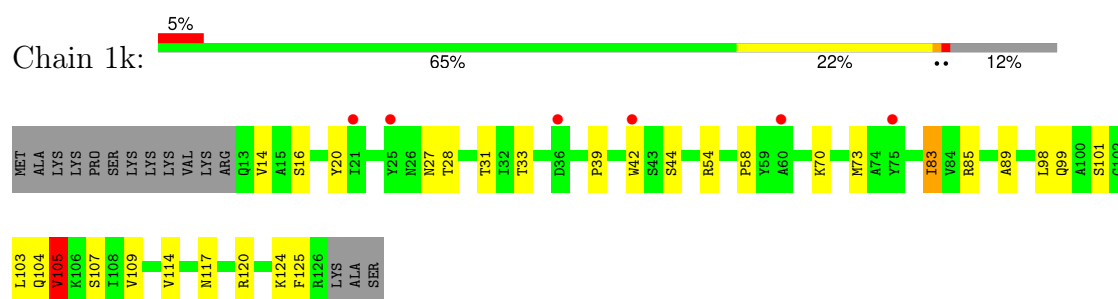
- Molecule 41: 30S ribosomal protein S10



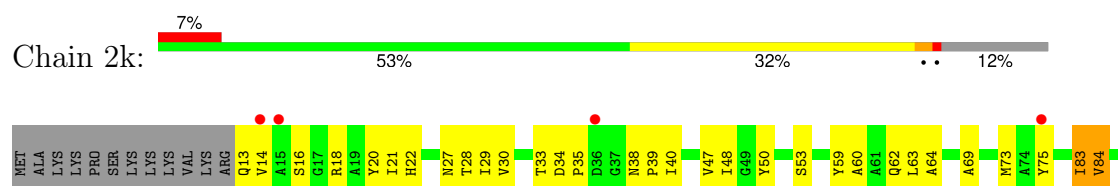
- Molecule 41: 30S ribosomal protein S10



- Molecule 42: 30S ribosomal protein S11

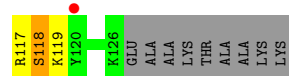
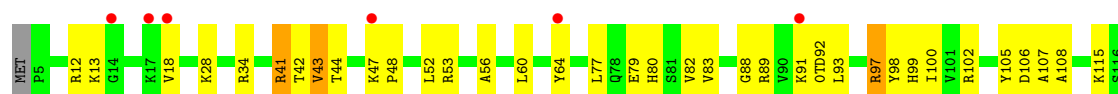


- Molecule 42: 30S ribosomal protein S11

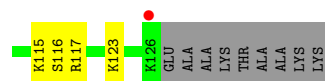
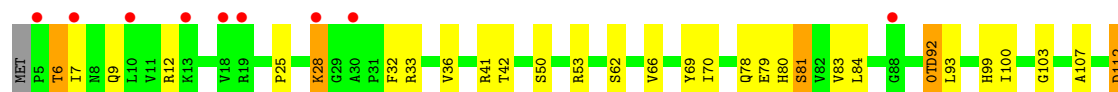




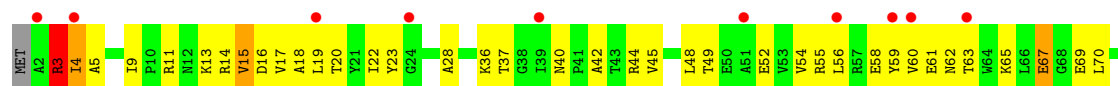
- Molecule 43: 30S ribosomal protein S12



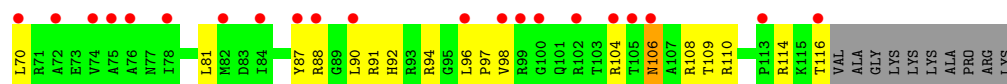
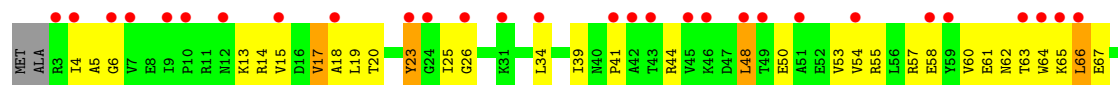
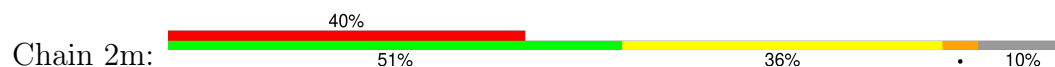
- Molecule 43: 30S ribosomal protein S12



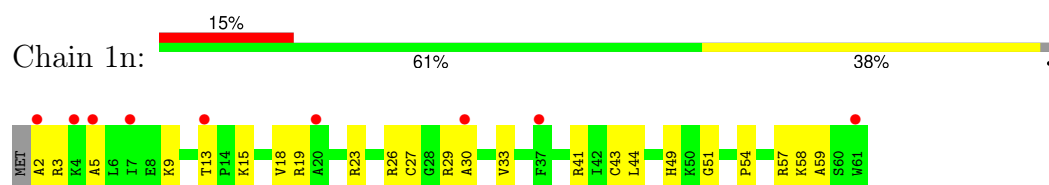
- Molecule 44: 30S ribosomal protein S13



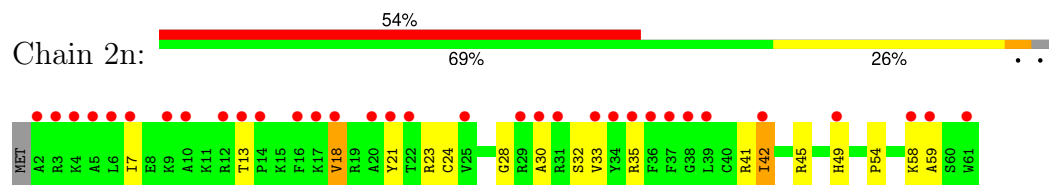
- Molecule 44: 30S ribosomal protein S13



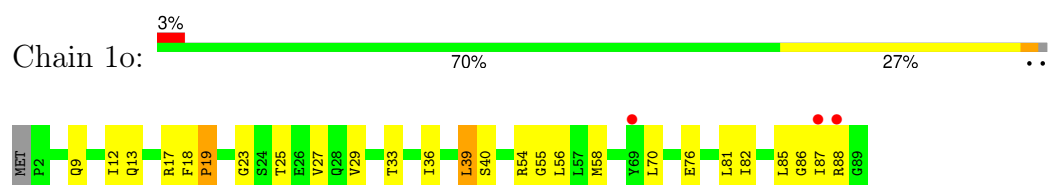
- Molecule 45: 30S ribosomal protein S14 type Z



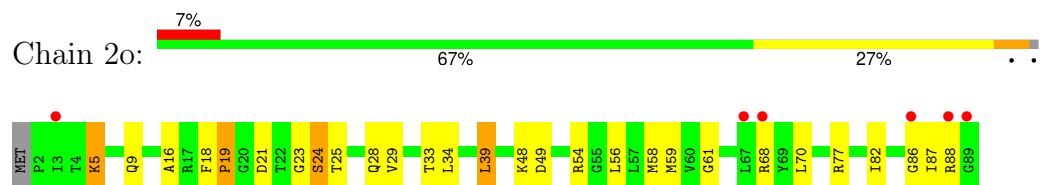
- Molecule 45: 30S ribosomal protein S14 type Z



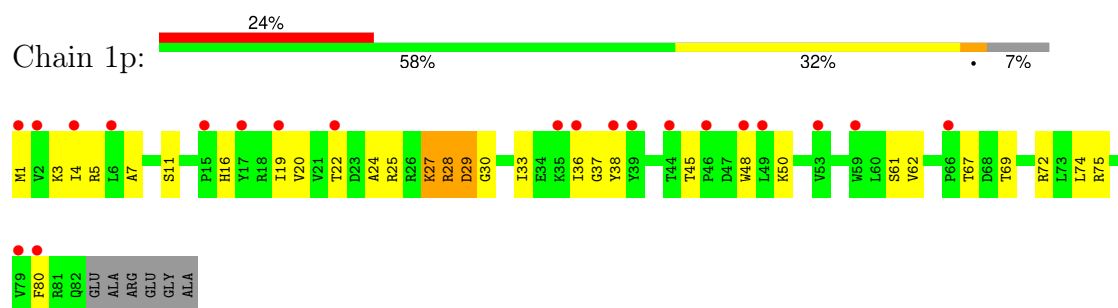
- Molecule 46: 30S ribosomal protein S15



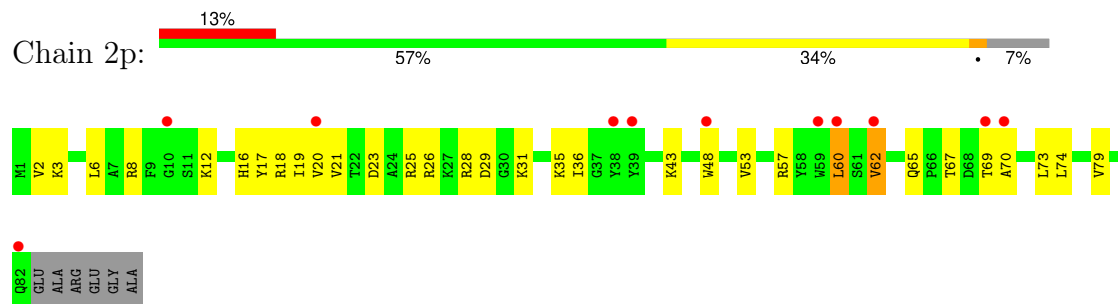
- Molecule 46: 30S ribosomal protein S15



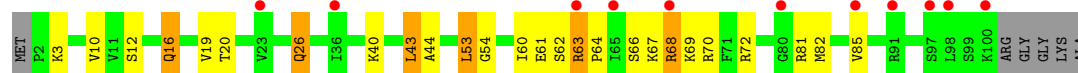
- Molecule 47: 30S ribosomal protein S16



- Molecule 47: 30S ribosomal protein S16



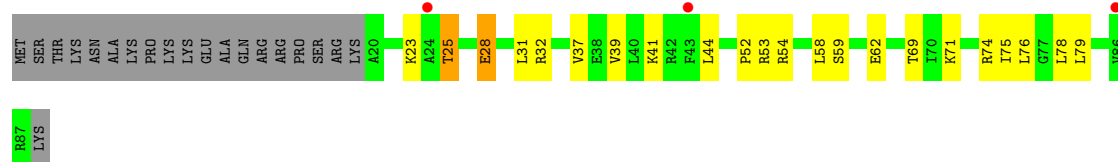
- Molecule 48: 30S ribosomal protein S17



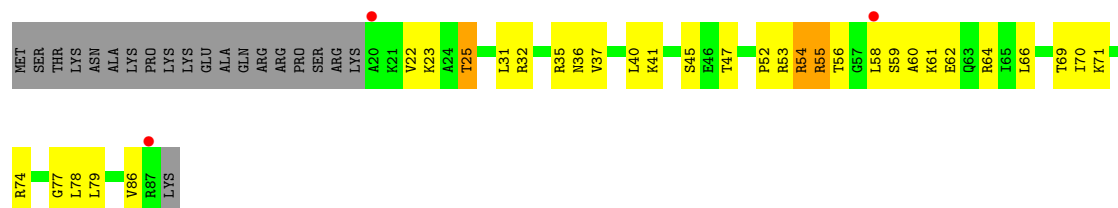
- Molecule 48: 30S ribosomal protein S17



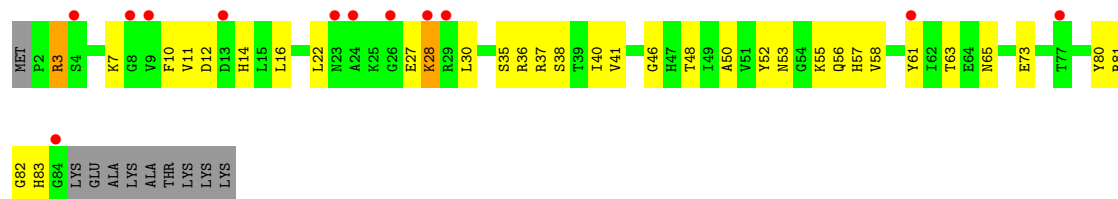
- Molecule 49: 30S ribosomal protein S18



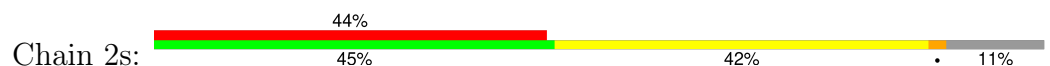
- Molecule 49: 30S ribosomal protein S18

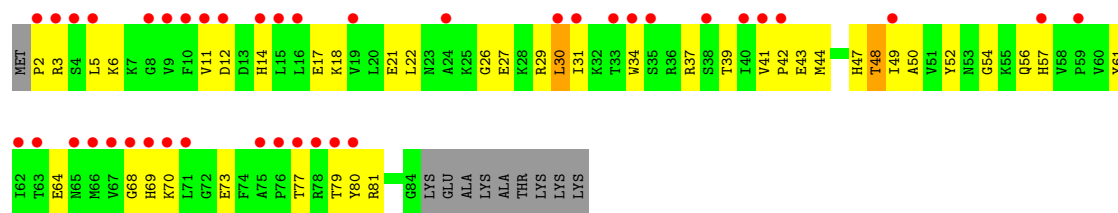


- Molecule 50: 30S ribosomal protein S19

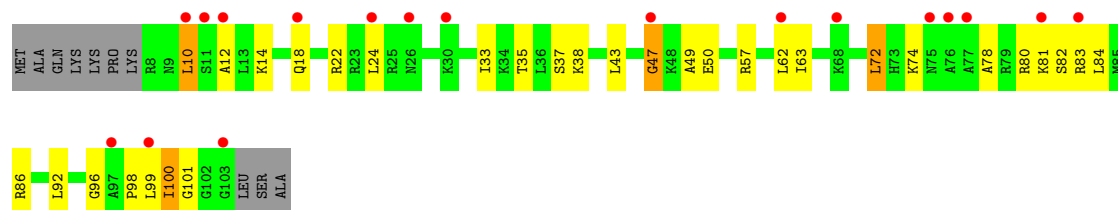


- Molecule 50: 30S ribosomal protein S19

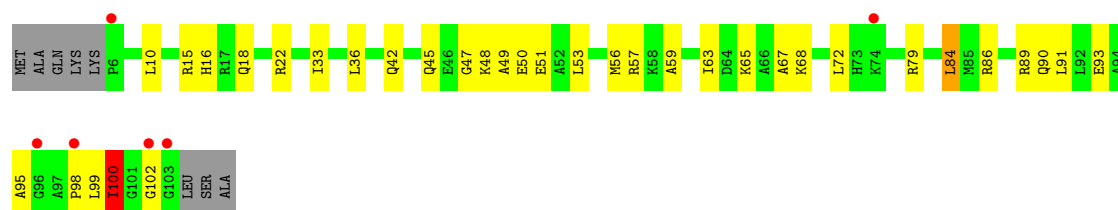




• Molecule 51: 30S ribosomal protein S20



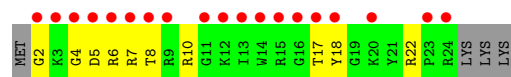
• Molecule 51: 30S ribosomal protein S20



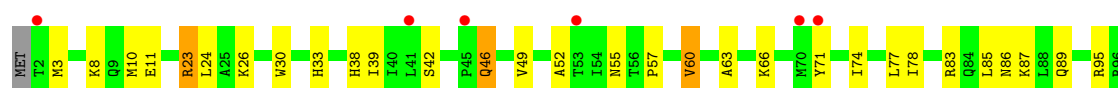
• Molecule 52: 30S ribosomal protein Thx

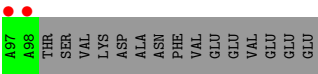


• Molecule 52: 30S ribosomal protein Thx

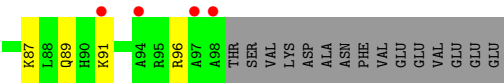
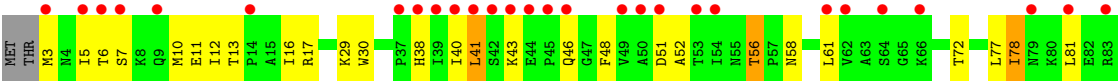


• Molecule 53: Ribosome-associated inhibitor A





● Molecule 53: Ribosome-associated inhibitor A



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	209.46Å 449.56Å 619.15Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	103.72 – 2.45 103.72 – 2.45	Depositor EDS
% Data completeness (in resolution range)	98.7 (103.72-2.45) 98.7 (103.72-2.45)	Depositor EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.19 (at 2.45Å)	Xtriage
Refinement program	PHENIX 1.8.2	Depositor
R, R_{free}	0.218 , 0.264 0.221 , 0.266	Depositor DCC
R_{free} test set	104449 reflections (4.95%)	wwPDB-VP
Wilson B-factor (Å ²)	52.3	Xtriage
Anisotropy	0.049	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 50.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.39$, $\langle L^2 \rangle = 0.21$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	297328	wwPDB-VP
Average B, all atoms (Å ²)	61.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.71% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: PSU, 2MG, OMC, 2MA, OMG, 5MC, MPD, SF4, UR3, MA6, OMU, 0TD, G7M, ERY, 5MU, HGR, M2G, MG, 4OC, ZN

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	1A	0.30	1/69005 (0.0%)	0.50	6/107711 (0.0%)
1	2A	0.24	0/68877	0.43	1/107509 (0.0%)
2	1B	0.23	0/2876	0.42	0/4486
2	2B	0.19	0/2878	0.37	0/4490
3	1D	0.30	0/2181	0.58	0/2940
3	2D	0.24	0/2186	0.49	0/2944
4	1E	0.27	0/1592	0.52	0/2149
4	2E	0.23	0/1592	0.48	0/2149
5	1F	0.27	0/1619	0.49	0/2193
5	2F	0.23	0/1615	0.50	2/2188 (0.1%)
6	1G	0.21	0/1451	0.44	0/1961
6	2G	0.21	0/1449	0.43	0/1957
7	1H	0.23	0/1356	0.43	0/1834
7	2H	0.20	0/1350	0.42	0/1826
8	1I	0.20	0/1109	0.43	0/1512
8	2I	0.19	0/1091	0.41	0/1490
9	1N	0.26	0/1148	0.45	0/1547
9	2N	0.20	0/1144	0.42	0/1543
10	1O	0.28	0/943	0.48	0/1269
10	2O	0.24	0/943	0.44	0/1269
11	1P	0.27	0/1152	0.49	0/1533
11	2P	0.21	0/1152	0.51	0/1533
12	1Q	0.28	0/1143	0.48	0/1527
12	2Q	0.21	0/1143	0.45	0/1527
13	1R	0.30	0/982	0.51	0/1312
13	2R	0.23	0/982	0.44	0/1312
14	1S	0.21	0/887	0.47	0/1180
14	2S	0.21	0/880	0.49	0/1172
15	1T	0.25	0/1105	0.49	0/1477
15	2T	0.22	0/1097	0.44	0/1468
16	1U	0.28	0/977	0.53	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	2U	0.19	0/977	0.40	0/1301
17	1V	0.26	0/786	0.49	0/1053
17	2V	0.21	0/782	0.43	0/1049
18	1W	0.30	0/897	0.50	0/1205
18	2W	0.22	0/897	0.42	0/1205
19	1X	0.26	0/764	0.49	0/1025
19	2X	0.20	0/764	0.42	0/1025
20	1Y	0.24	0/823	0.54	0/1099
20	2Y	0.19	0/823	0.46	0/1100
21	1Z	0.23	0/1620	0.45	0/2200
21	2Z	0.21	0/1590	0.44	0/2162
22	10	0.27	0/616	0.50	0/821
22	20	0.21	0/616	0.47	0/821
23	11	0.25	0/761	0.47	0/1013
23	21	0.24	0/766	0.44	0/1018
24	12	0.24	0/590	0.48	0/781
24	22	0.18	0/594	0.38	0/785
25	13	0.28	0/474	0.50	0/635
25	23	0.22	0/469	0.42	0/630
26	14	0.23	0/559	0.59	0/754
26	24	0.26	0/549	0.60	2/741 (0.3%)
27	15	0.33	0/473	0.62	1/639 (0.2%)
27	25	0.24	0/469	0.46	0/635
28	16	0.26	0/460	0.46	0/613
28	26	0.21	0/456	0.45	0/608
29	17	0.32	0/426	0.55	0/561
29	27	0.26	0/426	0.49	0/561
30	18	0.27	0/525	0.50	0/691
30	28	0.22	0/525	0.40	0/691
31	19	0.30	0/310	0.51	0/407
31	29	0.22	0/310	0.44	0/407
32	1a	0.21	0/35795	0.40	0/55864
32	2a	0.20	0/35890	0.39	1/56012 (0.0%)
33	1b	0.22	0/1876	0.50	0/2533
33	2b	0.23	0/1860	0.50	0/2518
34	1c	0.20	0/1582	0.43	0/2137
34	2c	0.22	0/1566	0.42	0/2119
35	1d	0.20	0/1695	0.46	0/2274
35	2d	0.21	0/1698	0.48	0/2277
36	1e	0.20	0/1149	0.45	0/1548
36	2e	0.21	0/1149	0.45	0/1548
37	1f	0.19	0/827	0.42	0/1120
37	2f	0.21	0/829	0.43	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	1g	0.18	0/1254	0.39	0/1683
38	2g	0.19	0/1248	0.38	0/1676
39	1h	0.20	0/1118	0.43	0/1506
39	2h	0.19	0/1108	0.45	1/1494 (0.1%)
40	1i	0.20	0/1005	0.45	0/1351
40	2i	0.22	0/985	0.47	0/1329
41	1j	0.20	0/732	0.39	0/993
41	2j	0.21	0/723	0.45	0/984
42	1k	0.20	0/849	0.40	0/1150
42	2k	0.19	0/848	0.41	0/1149
43	1l	0.21	0/937	0.49	0/1260
43	2l	0.20	0/937	0.43	0/1260
44	1m	0.18	0/924	0.42	0/1242
44	2m	0.24	0/905	0.48	0/1217
45	1n	0.20	0/501	0.48	0/664
45	2n	0.20	0/501	0.42	0/664
46	1o	0.21	0/739	0.41	0/985
46	2o	0.19	0/739	0.39	0/985
47	1p	0.21	0/697	0.53	0/939
47	2p	0.20	0/693	0.46	0/935
48	1q	0.20	0/836	0.43	0/1117
48	2q	0.19	0/836	0.42	0/1117
49	1r	0.20	0/560	0.42	0/746
49	2r	0.19	0/560	0.40	0/746
50	1s	0.19	0/663	0.49	0/895
50	2s	0.21	0/660	0.39	0/893
51	1t	0.20	0/734	0.46	0/969
51	2t	0.20	0/736	0.43	0/976
52	1u	0.23	0/203	0.43	0/266
52	2u	0.21	0/203	0.48	0/266
53	1y	0.17	0/776	0.38	0/1048
53	2y	0.20	0/761	0.37	0/1030
All	All	0.24	1/309889 (0.0%)	0.45	14/463153 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
26	24	0	1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	O3'-P	5.24	1.61	1.56

All (14) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	1042	G	OP1-P-O3'	-8.82	81.55	108.00
1	1A	1042	G	OP2-P-O3'	-6.89	87.32	108.00
1	2A	1992	G	C2'-C3'-O3'	6.03	118.54	109.50
1	1A	2689	U	C4'-C3'-O3'	5.69	117.93	109.40
39	2h	79	VAL	N-CA-C	-5.69	107.27	112.96
27	15	6	VAL	CB-CA-C	5.64	114.86	109.33
1	1A	512	G	O4'-C1'-N9	5.63	116.64	108.20
26	24	59	PHE	CA-C-N	5.47	131.55	121.70
26	24	59	PHE	C-N-CA	5.47	131.55	121.70
32	2a	266	G	C2'-C3'-O3'	5.47	117.70	109.50
5	2F	21	ALA	CA-C-N	5.25	131.16	121.70
5	2F	21	ALA	C-N-CA	5.25	131.16	121.70
1	1A	1300	U	C4'-C3'-O3'	5.18	117.18	109.40
1	1A	1300	U	P-O3'-C3'	5.07	127.81	120.20

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
26	24	18	CYS	Peptide

5.2 Too-close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1A	61871	0	31210	660	0
1	2A	61760	0	31157	825	0
2	1B	2572	0	1305	28	0
2	2B	2573	0	1306	31	0
3	1D	2131	0	2207	53	0
3	2D	2136	0	2218	46	0
4	1E	1559	0	1618	30	0
4	2E	1559	0	1618	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	1F	1584	0	1625	45	0
5	2F	1580	0	1619	49	0
6	1G	1426	0	1445	46	0
6	2G	1424	0	1441	64	0
7	1H	1330	0	1407	32	0
7	2H	1324	0	1402	47	0
8	1I	1094	0	1127	24	0
8	2I	1076	0	1094	31	0
9	1N	1121	0	1195	17	0
9	2N	1117	0	1184	24	0
10	1O	933	0	996	18	0
10	2O	933	0	996	17	0
11	1P	1135	0	1212	31	0
11	2P	1135	0	1212	32	0
12	1Q	1122	0	1179	20	0
12	2Q	1122	0	1179	28	0
13	1R	968	0	1033	18	0
13	2R	968	0	1033	22	0
14	1S	877	0	938	20	0
14	2S	870	0	923	17	0
15	1T	1091	0	1151	28	0
15	2T	1083	0	1136	24	0
16	1U	959	0	1019	17	0
16	2U	959	0	1019	21	0
17	1V	775	0	841	13	0
17	2V	771	0	830	13	0
18	1W	886	0	940	14	0
18	2W	886	0	940	16	0
19	1X	750	0	814	15	0
19	2X	750	0	814	13	0
20	1Y	810	0	892	19	0
20	2Y	810	0	887	23	0
21	1Z	1587	0	1598	30	0
21	2Z	1557	0	1564	59	0
22	10	608	0	622	9	0
22	20	608	0	622	14	0
23	11	754	0	823	13	0
23	21	759	0	837	23	0
24	12	588	0	643	12	0
24	22	592	0	654	12	0
25	13	469	0	518	10	0
25	23	464	0	514	10	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	14	546	0	522	20	0
26	24	536	0	514	36	0
27	15	459	0	476	9	0
27	25	455	0	465	11	0
28	16	453	0	473	11	0
28	26	449	0	469	10	0
29	17	418	0	467	7	0
29	27	418	0	467	8	0
30	18	517	0	582	18	0
30	28	517	0	582	13	0
31	19	307	0	335	3	0
31	29	307	0	335	12	0
32	1a	32246	0	16293	478	0
32	2a	32331	0	16338	524	0
33	1b	1842	0	1862	66	0
33	2b	1825	0	1828	71	0
34	1c	1558	0	1557	34	0
34	2c	1542	0	1517	49	0
35	1d	1665	0	1687	61	0
35	2d	1668	0	1703	60	0
36	1e	1133	0	1191	35	0
36	2e	1133	0	1191	39	0
37	1f	814	0	808	24	0
37	2f	816	0	808	19	0
38	1g	1235	0	1249	28	0
38	2g	1229	0	1238	38	0
39	1h	1098	0	1143	32	0
39	2h	1088	0	1126	32	0
40	1i	986	0	990	35	0
40	2i	966	0	953	53	0
41	1j	719	0	672	23	0
41	2j	710	0	661	27	0
42	1k	834	0	838	19	0
42	2k	833	0	836	24	0
43	1l	932	0	981	25	0
43	2l	932	0	981	20	0
44	1m	914	0	954	33	0
44	2m	895	0	920	35	0
45	1n	492	0	529	16	0
45	2n	492	0	529	15	0
46	1o	728	0	760	17	0
46	2o	728	0	760	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	1p	681	0	697	22	0
47	2p	677	0	686	19	0
48	1q	823	0	891	19	0
48	2q	823	0	891	17	0
49	1r	555	0	618	14	0
49	2r	555	0	618	23	0
50	1s	648	0	658	24	0
50	2s	645	0	635	33	0
51	1t	732	0	809	22	0
51	2t	733	0	795	25	0
52	1u	199	0	208	6	0
52	2u	199	0	208	7	0
53	1y	764	0	786	21	0
53	2y	749	0	757	18	0
54	10	8	0	0	0	0
54	11	6	0	0	0	0
54	13	4	0	0	0	0
54	15	8	0	0	0	0
54	17	5	0	0	0	0
54	18	2	0	0	0	0
54	19	2	0	0	0	0
54	1A	1025	0	0	0	0
54	1B	29	0	0	0	0
54	1D	16	0	0	0	0
54	1E	9	0	0	0	0
54	1F	17	0	0	0	0
54	1G	4	0	0	0	0
54	1H	2	0	0	0	0
54	1N	4	0	0	0	0
54	1O	1	0	0	0	0
54	1P	6	0	0	0	0
54	1Q	5	0	0	0	0
54	1R	4	0	0	0	0
54	1T	4	0	0	0	0
54	1U	9	0	0	0	0
54	1V	6	0	0	0	0
54	1W	2	0	0	0	0
54	1Y	2	0	0	0	0
54	1Z	1	0	0	0	0
54	1a	281	0	0	0	0
54	1b	1	0	0	0	0
54	1d	3	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	1e	3	0	0	0	0
54	1f	2	0	0	0	0
54	1g	3	0	0	0	0
54	1h	2	0	0	0	0
54	1i	1	0	0	0	0
54	1k	1	0	0	0	0
54	1l	2	0	0	0	0
54	1m	1	0	0	0	0
54	1n	1	0	0	0	0
54	1o	2	0	0	0	0
54	1t	1	0	0	0	0
54	1y	2	0	0	0	0
54	20	2	0	0	0	0
54	21	1	0	0	0	0
54	23	1	0	0	0	0
54	25	3	0	0	0	0
54	27	1	0	0	0	0
54	28	2	0	0	0	0
54	2A	670	0	0	0	0
54	2B	14	0	0	0	0
54	2D	7	0	0	0	0
54	2E	5	0	0	0	0
54	2F	4	0	0	0	0
54	2G	1	0	0	0	0
54	2O	1	0	0	0	0
54	2P	1	0	0	0	0
54	2Q	4	0	0	0	0
54	2R	2	0	0	0	0
54	2T	4	0	0	0	0
54	2U	1	0	0	0	0
54	2V	1	0	0	0	0
54	2W	3	0	0	0	0
54	2Y	1	0	0	0	0
54	2a	190	0	0	0	0
54	2e	1	0	0	0	0
54	2f	1	0	0	0	0
54	2h	1	0	0	0	0
54	2j	1	0	0	0	0
54	2k	1	0	0	0	0
54	2l	1	0	0	0	0
54	2n	1	0	0	0	0
54	2r	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
54	2t	1	0	0	0	0
55	1A	36	0	29	2	0
55	2A	36	0	29	1	0
56	1A	51	0	67	5	0
56	2A	51	0	66	6	0
57	18	8	0	14	1	0
57	1A	8	0	14	1	0
57	1T	8	0	14	1	0
57	1a	8	0	13	7	0
57	2A	24	0	42	2	0
58	1B	12	0	12	1	0
58	1F	12	0	12	2	0
59	14	1	0	0	0	0
59	15	1	0	0	0	0
59	16	1	0	0	0	0
59	19	1	0	0	0	0
59	1Y	1	0	0	0	0
59	1n	1	0	0	0	0
59	24	1	0	0	0	0
59	25	1	0	0	0	0
59	26	1	0	0	0	0
59	29	1	0	0	0	0
59	2Y	1	0	0	0	0
59	2n	1	0	0	0	0
60	1d	8	0	0	0	0
60	2d	8	0	0	1	0
61	10	22	0	0	1	0
61	11	26	0	0	0	0
61	12	14	0	0	1	0
61	13	23	0	0	0	0
61	14	2	0	0	0	0
61	15	25	0	0	1	0
61	16	20	0	0	1	0
61	17	14	0	0	0	0
61	18	24	0	0	2	0
61	19	4	0	0	0	0
61	1A	3899	0	0	111	0
61	1B	94	0	0	2	0
61	1D	118	0	0	6	0
61	1E	83	0	0	2	0
61	1F	63	0	0	4	0
61	1G	15	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	1H	12	0	0	1	0
61	1I	7	0	0	0	0
61	1N	51	0	0	1	0
61	1O	27	0	0	0	0
61	1P	64	0	0	6	0
61	1Q	43	0	0	3	0
61	1R	34	0	0	1	0
61	1S	10	0	0	0	0
61	1T	38	0	0	2	0
61	1U	42	0	0	6	0
61	1V	36	0	0	1	0
61	1W	28	0	0	1	0
61	1X	27	0	0	2	0
61	1Y	17	0	0	3	0
61	1Z	10	0	0	0	0
61	1a	454	0	0	26	0
61	1c	2	0	0	0	0
61	1d	7	0	0	0	0
61	1e	4	0	0	0	0
61	1f	2	0	0	0	0
61	1h	1	0	0	0	0
61	1l	2	0	0	0	0
61	1m	1	0	0	0	0
61	1o	5	0	0	1	0
61	1p	4	0	0	0	0
61	1y	4	0	0	0	0
61	20	9	0	0	0	0
61	21	17	0	0	2	0
61	22	1	0	0	0	0
61	23	3	0	0	1	0
61	24	1	0	0	0	0
61	25	7	0	0	0	0
61	26	4	0	0	1	0
61	27	6	0	0	0	0
61	28	8	0	0	0	0
61	29	1	0	0	0	0
61	2A	2164	0	0	119	0
61	2B	45	0	0	5	0
61	2D	52	0	0	1	0
61	2E	31	0	0	0	0
61	2F	23	0	0	1	0
61	2G	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	2H	1	0	0	0	0
61	2I	4	0	0	2	0
61	2N	5	0	0	0	0
61	2O	19	0	0	0	0
61	2P	26	0	0	3	0
61	2Q	15	0	0	0	0
61	2R	18	0	0	3	0
61	2S	5	0	0	0	0
61	2T	11	0	0	0	0
61	2U	15	0	0	3	0
61	2V	6	0	0	1	0
61	2W	18	0	0	0	0
61	2X	8	0	0	0	0
61	2Y	2	0	0	0	0
61	2Z	9	0	0	2	0
61	2a	322	0	0	33	0
61	2d	3	0	0	0	0
61	2e	1	0	0	0	0
61	2f	3	0	0	0	0
61	2j	2	0	0	0	0
61	2l	2	0	0	0	0
61	2n	1	0	0	0	0
61	2o	2	0	0	0	0
61	2p	1	0	0	0	0
61	2q	2	0	0	0	0
61	2r	3	0	0	1	0
61	2t	2	0	0	0	0
61	2u	1	0	0	0	0
61	2y	2	0	0	0	0
All	All	297328	0	194716	4465	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 10.

All (4465) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1082:U:H3	1:1A:1086:A:N6	1.49	1.08
26:24:59:PHE:HA	26:24:61:ARG:H	1.15	1.06
1:2A:788:A:N6	61:2A:3705:HOH:O	1.92	1.02
32:1a:1003:G:H2'	32:1a:1004:A:H4'	1.43	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2602:A:H1'	1:2A:2603:G:H5''	1.47	0.97
1:1A:330:A:H2	1:1A:1210:A:HO2'	1.00	0.96
1:1A:1798:U:H5'	3:1D:259:THR:HG22	1.47	0.96
32:1a:201:C:H42	32:1a:216:G:H1	1.15	0.94
32:2a:1003:G:H2'	32:2a:1004:A:H4'	1.46	0.94
1:2A:2343:C:HO2'	1:2A:2373:G:HO2'	1.16	0.92
20:1Y:92:ASN:HB2	20:1Y:94:LYS:H	1.35	0.91
1:1A:1082:U:N3	1:1A:1086:A:N6	2.13	0.89
1:2A:2427:C:OP1	61:2A:3704:HOH:O	1.92	0.88
43:2l:32:PHE:HB3	43:2l:84:LEU:HD11	1.54	0.88
32:1a:73:G:H1	32:1a:96:U:H3	1.20	0.88
32:1a:1025:U:C2	32:1a:1036:G:O6	2.27	0.87
1:1A:1082:U:O4	1:1A:1086:A:N1	2.07	0.87
1:1A:2102:U:O2	1:1A:2187:G:O6	1.93	0.87
1:1A:1648:C:OP1	61:1A:4102:HOH:O	1.94	0.86
32:1a:1373:G:H5''	38:1g:36:LYS:HE2	1.57	0.86
1:2A:2134:A:H8	1:2A:2156:G:H21	1.21	0.85
26:24:59:PHE:HA	26:24:61:ARG:N	1.90	0.85
31:29:25:VAL:HB	31:29:34:GLN:HB2	1.58	0.85
8:1I:92:VAL:HG13	8:1I:120:ILE:HB	1.59	0.84
35:1d:129:ASN:HD21	35:1d:144:ASP:HB3	1.39	0.84
32:1a:1086:U:H3	32:1a:1099:G:H22	1.21	0.84
50:2s:50:ALA:HB1	50:2s:57:HIS:HB3	1.60	0.84
1:1A:279:C:H42	1:1A:361:G:H1	1.26	0.84
32:2a:609:A:N7	61:2a:3210:HOH:O	2.11	0.83
1:1A:826:U:OP1	61:1A:4105:HOH:O	1.97	0.83
1:2A:194:G:OP2	61:2A:3706:HOH:O	1.95	0.83
6:1G:161:THR:HG22	6:1G:163:ALA:H	1.43	0.83
1:2A:1264:G:OP1	27:25:19:ARG:NH2	2.12	0.83
4:2E:110:GLY:O	61:2R:301:HOH:O	1.95	0.83
1:1A:1669:A:OP2	61:1A:4103:HOH:O	1.95	0.82
32:2a:1285:A:H4'	32:2a:1286:A:H5'	1.61	0.82
38:2g:113:GLU:HG3	38:2g:119:ARG:HG2	1.61	0.82
32:2a:1118:C:OP1	40:2i:9:ARG:NH1	2.12	0.82
32:1a:266:G:H5'	32:1a:268:C:H41	1.44	0.82
32:1a:975:A:H4'	32:1a:976:G:H5''	1.62	0.82
32:2a:559:A:H4'	32:2a:560:U:H3'	1.59	0.82
1:1A:517:C:OP1	27:15:16:ARG:NH2	2.11	0.81
1:2A:2319:G:H22	14:2S:3:ARG:HD3	1.46	0.81
5:1F:53:THR:HG23	5:1F:55:GLY:H	1.43	0.81
1:1A:2822:G:OP2	61:1A:4106:HOH:O	1.98	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2789:C:O2	1:1A:2894:G:N1	2.13	0.81
10:1O:48:PRO:HB3	32:1a:1422:G:H5''	1.64	0.80
23:21:50:ARG:HG2	23:21:59:THR:HG22	1.64	0.79
3:1D:39:LYS:NZ	3:1D:57:GLY:O	2.14	0.79
1:2A:2103:C:N4	1:2A:2185:C:H42	1.78	0.79
35:2d:18:LYS:NZ	35:2d:31:CYS:SG	2.55	0.79
21:2Z:28:MET:HE3	21:2Z:37:VAL:HG11	1.65	0.79
35:1d:172:PRO:HB2	35:1d:187:ARG:HH21	1.48	0.79
32:2a:975:A:H4'	32:2a:976:G:H5''	1.65	0.79
23:11:50:ARG:HG2	23:11:59:THR:HG22	1.64	0.79
46:2o:54:ARG:HG2	46:2o:58:MET:HE2	1.65	0.79
1:1A:1024:G:OP2	61:1A:4104:HOH:O	1.99	0.79
1:1A:1757:U:OP1	61:1A:4107:HOH:O	2.00	0.78
38:1g:111:ARG:NH1	38:1g:113:GLU:OE2	2.17	0.78
21:2Z:81:ARG:NH2	61:2Z:301:HOH:O	2.15	0.78
1:2A:1314:C:OP1	61:2A:3708:HOH:O	2.01	0.78
1:2A:1798:U:OP2	3:2D:274:ARG:NH2	2.16	0.78
32:2a:664:G:H22	32:2a:741:G:H1	1.31	0.78
41:2j:49:VAL:HG23	45:2n:41:ARG:HB2	1.63	0.78
32:2a:1503:A:H5'	32:2a:1531:A:H1'	1.65	0.78
32:2a:1318:A:H5''	50:2s:3:ARG:HH22	1.46	0.78
32:2a:1360:A:OP2	45:2n:35:ARG:NH2	2.16	0.78
33:2b:15:VAL:HB	33:2b:209:ARG:HB3	1.63	0.78
7:2H:143:GLN:NE2	7:2H:147:ASN:OD1	2.16	0.78
36:2e:57:LYS:HG2	36:2e:61:TYR:HE2	1.49	0.78
34:1c:180:ALA:HB1	34:1c:203:PHE:HE1	1.49	0.78
21:2Z:19:ARG:NH1	21:2Z:84:GLU:O	2.16	0.78
1:1A:2821:A:OP2	61:1A:4106:HOH:O	2.02	0.77
1:2A:2527:C:N4	61:2A:3752:HOH:O	2.15	0.77
32:2a:1500:A:OP1	61:2a:3203:HOH:O	2.02	0.77
1:1A:2143:C:N3	1:1A:2148:G:O6	2.16	0.77
1:2A:1647:G:OP1	61:2A:3707:HOH:O	2.00	0.77
1:2A:1890:A:OP2	61:2A:3711:HOH:O	2.02	0.77
33:2b:84:GLU:HB3	33:2b:219:VAL:HG21	1.67	0.77
32:2a:1500:A:OP2	61:2a:3204:HOH:O	2.02	0.77
26:14:16:CYS:SG	26:14:17:GLY:N	2.57	0.77
36:2e:140:ARG:O	36:2e:143:ARG:NH2	2.18	0.77
32:1a:1179:A:OP2	40:1i:93:ARG:NH2	2.16	0.77
36:1e:50:GLU:HB2	36:1e:53:LEU:HD13	1.65	0.77
1:2A:1993:U:OP2	61:2A:3709:HOH:O	2.02	0.77
1:2A:2706:G:N7	61:2A:3770:HOH:O	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:8:LEU:HB2	41:1j:70:ARG:HB2	1.67	0.76
33:2b:18:GLY:HA2	33:2b:42:ILE:HD12	1.67	0.76
36:2e:71:LEU:HD21	36:2e:115:VAL:HG22	1.67	0.76
1:1A:1382:G:N7	61:1A:4151:HOH:O	2.19	0.76
1:1A:2111:C:OP2	1:1A:2145:C:N4	2.17	0.76
9:1N:46:VAL:HG23	9:1N:48:MET:HG2	1.67	0.76
32:1a:1518:MA6:H93	32:1a:1519:MA6:H92	1.67	0.76
33:2b:178:ARG:HB3	39:2h:72:PRO:HA	1.68	0.76
32:1a:1158:C:H5	32:1a:1181:G:H1	1.33	0.76
42:2k:13:GLN:N	42:2k:75:TYR:O	2.18	0.76
1:2A:775:G:O3'	61:2A:3710:HOH:O	2.02	0.76
1:2A:1023:U:OP2	61:2A:3712:HOH:O	2.03	0.76
1:2A:1064:C:N4	1:2A:1074:G:O6	2.18	0.76
32:2a:1151:A:HO2'	32:2a:1152:A:H8	1.31	0.76
32:2a:401:C:OP2	35:2d:73:ARG:NH2	2.19	0.76
19:1X:76:ARG:NH1	61:1X:102:HOH:O	2.19	0.75
11:1P:141:ALA:HA	25:23:38:GLU:HG2	1.67	0.75
1:2A:2808:U:O2	1:2A:2892:A:N6	2.20	0.75
1:1A:763:G:OP1	61:1A:4108:HOH:O	2.04	0.75
1:2A:1271:G:OP2	61:2A:3707:HOH:O	2.03	0.75
1:2A:2237:G:OP1	61:2A:3713:HOH:O	2.04	0.75
6:2G:161:THR:HG22	6:2G:163:ALA:H	1.49	0.75
15:1T:29:ARG:HG3	15:1T:46:GLU:HB2	1.69	0.75
33:2b:91:PRO:HG3	33:2b:155:LEU:HD13	1.69	0.75
1:2A:2141:G:O6	1:2A:2150:U:O2	2.05	0.75
36:2e:144:THR:H	36:2e:147:ASP:HB2	1.52	0.75
41:2j:38:ILE:HG12	41:2j:71:LEU:HB3	1.68	0.75
1:2A:1970:A:OP1	61:2A:3715:HOH:O	2.05	0.75
10:2O:48:PRO:HB3	32:2a:1422:G:H5''	1.69	0.75
28:26:8:LYS:NZ	61:26:601:HOH:O	2.20	0.75
1:2A:1602:U:O4	61:2A:3714:HOH:O	2.04	0.74
44:2m:13:LYS:HB3	44:2m:18:ALA:HB2	1.69	0.74
1:1A:1614:A:OP2	61:1A:4109:HOH:O	2.04	0.74
32:2a:758:G:N7	61:2a:3224:HOH:O	2.21	0.74
1:2A:881:G:H1	1:2A:895:U:H3	1.31	0.74
1:2A:1332:G:OP1	61:2A:3708:HOH:O	2.06	0.74
1:1A:1634:A:OP2	61:1A:4110:HOH:O	2.05	0.74
6:1G:181:ARG:HG3	6:1G:182:LYS:H	1.52	0.74
1:2A:1762:A:N1	61:2A:3783:HOH:O	2.20	0.74
1:2A:2644:G:O6	61:2A:3719:HOH:O	2.06	0.74
1:2A:826:U:OP1	61:2A:3704:HOH:O	2.06	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1798:U:H5'	3:2D:259:THR:HG22	1.70	0.74
25:13:3:ARG:NH1	25:13:60:GLU:OE2	2.21	0.74
25:13:8:LEU:HD13	25:13:31:LEU:HD23	1.70	0.74
32:1a:911:U:OP2	43:1l:97:ARG:NH2	2.20	0.74
32:1a:946:A:H2'	32:1a:947:G:C8	2.22	0.74
32:1a:176:C:H2'	32:1a:177:C:H6	1.52	0.74
39:2h:64:LYS:HG2	39:2h:79:VAL:HG21	1.67	0.74
32:1a:964:A:OP1	61:1a:1903:HOH:O	2.05	0.74
33:2b:110:GLN:HG2	33:2b:111:ARG:HH12	1.53	0.74
39:2h:12:ARG:HD2	39:2h:26:VAL:HG12	1.69	0.74
40:2i:42:ARG:NH1	40:2i:71:SER:O	2.21	0.74
32:1a:596:C:O2	32:1a:644:G:N2	2.16	0.74
46:1o:54:ARG:HG2	46:1o:58:MET:HE2	1.68	0.74
1:2A:2439:A:N1	61:2A:3778:HOH:O	2.19	0.74
1:1A:271(L):U:H5'	8:1l:50:ARG:HH12	1.52	0.73
49:1r:32:ARG:HA	49:1r:69:THR:HG21	1.70	0.73
40:2i:46:ALA:HB2	40:2i:74:ILE:HG23	1.67	0.73
1:1A:1023:U:OP2	61:1A:4104:HOH:O	2.06	0.73
32:1a:1189:C:OP1	41:1j:51:ARG:NH2	2.21	0.73
12:2Q:11:LYS:HD3	12:2Q:87:LYS:HG2	1.69	0.73
1:2A:2104:G:N7	1:2A:2186:G:N2	2.36	0.73
21:2Z:152:ALA:HA	21:2Z:155:LEU:HD13	1.70	0.73
1:2A:2006:C:OP2	61:2A:3716:HOH:O	2.05	0.73
1:2A:2103:C:H42	1:2A:2185:C:H42	1.33	0.73
1:1A:1971:A:OP2	3:1D:242:ARG:NH2	2.22	0.73
1:2A:2105:C:N4	1:2A:2106:G:O6	2.22	0.73
32:2a:559:A:OP1	36:2e:126:ARG:NH2	2.21	0.73
32:2a:1002:G:H2'	32:2a:1003:G:C8	2.23	0.73
32:1a:574:A:OP2	61:1a:1902:HOH:O	2.05	0.72
1:2A:2036:C:OP2	61:2A:3718:HOH:O	2.05	0.72
6:2G:36:LYS:HE3	6:2G:160:VAL:HG21	1.71	0.72
32:1a:664:G:H22	32:1a:741:G:H1	1.36	0.72
1:2A:509:C:OP1	61:2A:3721:HOH:O	2.06	0.72
26:14:7:PRO:HB2	26:14:27:THR:HG21	1.72	0.72
1:1A:120:U:OP2	61:1A:4114:HOH:O	2.08	0.72
1:2A:962:G:OP1	61:2A:3720:HOH:O	2.06	0.72
21:2Z:33:LEU:HD11	21:2Z:90:VAL:HG21	1.69	0.72
1:1A:135:G:N7	61:1A:4175:HOH:O	2.21	0.72
35:2d:57:ARG:NH2	35:2d:205:GLU:OE1	2.19	0.72
12:1Q:111:GLU:OE2	12:1Q:133:ARG:NH2	2.23	0.72
32:1a:111:G:OP2	61:1a:1904:HOH:O	2.08	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:427:U:OP1	35:2d:13:ARG:NH2	2.22	0.72
1:2A:11:G:H2'	1:2A:12:U:H5'	1.71	0.72
1:2A:2156:G:N7	1:2A:2157:G:N2	2.38	0.72
1:2A:2379:G:O2'	14:2S:17:ARG:NH1	2.22	0.72
3:1D:21:PHE:HB3	3:1D:24:ILE:HD12	1.71	0.71
31:29:2:LYS:NZ	31:29:31:LYS:O	2.20	0.71
32:2a:70:G:H1	32:2a:99:U:H3	1.35	0.71
1:1A:2539:C:OP2	61:1A:4111:HOH:O	2.06	0.71
1:1A:1865:G:OP1	61:1A:4113:HOH:O	2.07	0.71
1:1A:2116:G:OP2	1:1A:2166:G:N2	2.16	0.71
1:1A:2427:C:OP1	61:1A:4105:HOH:O	2.07	0.71
32:2a:431:A:OP1	61:2a:3206:HOH:O	2.08	0.71
32:2a:1198:G:OP1	61:2a:3207:HOH:O	2.08	0.71
32:1a:399:G:O6	61:1a:1905:HOH:O	2.08	0.71
1:2A:271(L):U:H5'	8:2I:50:ARG:HH22	1.54	0.71
1:2A:731:C:OP1	61:2A:3723:HOH:O	2.08	0.71
1:2A:2296:U:OP2	14:2S:9:ARG:NH2	2.23	0.71
5:2F:21:ALA:HB3	5:2F:22:ALA:HA	1.72	0.71
27:25:16:ARG:NH1	27:25:17:ASP:OD1	2.23	0.71
48:2q:66:SER:O	48:2q:70:ARG:NH1	2.23	0.71
1:2A:2504:U:OP2	61:2A:3725:HOH:O	2.09	0.71
32:2a:854:G:O6	61:2a:3205:HOH:O	2.07	0.71
6:2G:40:ASN:HB3	6:2G:156:ASP:HB2	1.72	0.71
51:1t:10:LEU:HB3	51:1t:12:ALA:H	1.56	0.71
1:2A:585:G:OP2	61:2A:3724:HOH:O	2.08	0.71
5:2F:132:VAL:HA	5:2F:138:GLU:HB3	1.72	0.71
1:1A:1085:A:O2'	1:1A:1104:C:O2'	2.08	0.71
1:2A:1669:A:OP2	61:2A:3726:HOH:O	2.09	0.71
41:1j:49:VAL:HG23	45:1n:41:ARG:HB2	1.73	0.71
1:2A:599:G:N7	61:2A:3814:HOH:O	2.24	0.71
34:2c:6:HIS:CD2	45:2n:49:HIS:HB3	2.26	0.70
36:1e:148:VAL:HG21	39:1h:107:LEU:HB3	1.73	0.70
1:2A:963:U:OP2	61:2A:3720:HOH:O	2.08	0.70
1:2A:2354:G:N7	61:2A:3816:HOH:O	2.24	0.70
7:2H:126:PRO:HG2	7:2H:130:ARG:HE	1.56	0.70
42:1k:99:GLN:HG2	42:1k:105:VAL:HG21	1.73	0.70
51:1t:33:ILE:O	51:1t:37:SER:OG	2.09	0.70
32:2a:13:U:OP1	61:2a:3209:HOH:O	2.10	0.70
32:2a:582:U:OP1	46:2o:68:ARG:NH2	2.24	0.70
32:2a:1025:U:O2'	32:2a:1026:G:N7	2.24	0.70
1:2A:2407:G:OP1	61:2A:3722:HOH:O	2.08	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1141:C:H2'	32:2a:1142:G:H8	1.56	0.70
32:1a:992:U:H4'	32:1a:993:G:H5'	1.74	0.70
1:2A:686:G:N2	61:2A:3705:HOH:O	2.23	0.70
40:2i:8:GLY:HA2	40:2i:79:LEU:HD23	1.74	0.70
46:2o:16:ALA:HB1	46:2o:21:ASP:HB3	1.73	0.70
1:1A:39:C:O2	5:1F:46:ARG:NH2	2.23	0.70
33:2b:166:ASP:HB3	33:2b:169:LYS:HB3	1.73	0.70
32:1a:506:G:OP1	61:1a:1906:HOH:O	2.09	0.70
32:1a:587:G:N7	61:1a:1930:HOH:O	2.25	0.70
35:2d:109:GLY:HA3	35:2d:165:MET:HG3	1.72	0.70
5:2F:30:PRO:HB3	11:2P:1:MET:HE1	1.74	0.70
26:24:16:CYS:SG	26:24:17:GLY:N	2.64	0.70
1:1A:2140:C:O2	1:1A:2151:G:N1	2.23	0.69
51:1t:14:LYS:HG2	51:1t:18:GLN:HE21	1.56	0.69
1:2A:994:C:OP1	16:2U:53:ARG:NH2	2.25	0.69
9:2N:104:LYS:HA	9:2N:107:LEU:HD12	1.74	0.69
1:2A:14:A:OP2	61:2A:3729:HOH:O	2.10	0.69
1:2A:2042:A:OP1	61:2A:3727:HOH:O	2.10	0.69
21:2Z:72:ARG:HG2	21:2Z:89:PHE:HB2	1.74	0.69
1:1A:2058:MA6:H2	56:1A:4027:ERY:H311	1.75	0.69
1:1A:2058:MA6:H103	56:1A:4027:ERY:H293	1.74	0.69
10:1O:2:ILE:HD12	10:1O:6:THR:HG21	1.72	0.69
1:2A:1648:C:OP1	61:2A:3707:HOH:O	2.10	0.69
41:2j:30:SER:HB2	41:2j:81:THR:HG22	1.73	0.69
49:2r:32:ARG:HA	49:2r:69:THR:HG21	1.73	0.69
1:2A:1654:A:OP1	61:2A:3733:HOH:O	2.11	0.69
1:1A:1816:G:O6	3:1D:35:LYS:NZ	2.23	0.69
6:1G:67:LYS:HD3	26:14:5:ILE:HB	1.73	0.69
32:2a:1521:G:N3	61:2a:3230:HOH:O	2.24	0.69
39:1h:41:ARG:NH2	39:1h:123:GLU:OE2	2.26	0.69
1:2A:2206:G:H5''	1:2A:2207:G:C8	2.27	0.69
1:2A:991:C:OP2	61:2A:3728:HOH:O	2.10	0.69
1:2A:2732:G:O6	61:2A:3730:HOH:O	2.11	0.69
21:2Z:9:TYR:HE2	21:2Z:61:LEU:HD23	1.58	0.69
32:1a:407:G:H5''	35:1d:115:ARG:HB3	1.73	0.69
32:1a:1441:G:H5''	32:1a:1442:G:H5'	1.74	0.69
32:2a:1129:C:H2'	32:2a:1139:G:N7	2.07	0.69
20:1Y:50:ARG:NH1	61:1Y:301:HOH:O	2.26	0.68
1:1A:256:A:OP2	61:1A:4117:HOH:O	2.11	0.68
32:1a:309:G:O2'	32:1a:607:A:N1	2.25	0.68
1:2A:493:G:OP2	61:2A:3734:HOH:O	2.12	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2364:C:OP1	22:20:55:ARG:NH1	2.25	0.68
4:1E:29:GLY:HA3	61:1E:402:HOH:O	1.93	0.68
1:2A:1342:A:OP2	61:2A:3714:HOH:O	2.09	0.68
32:2a:1222:G:O6	61:2a:3208:HOH:O	2.09	0.68
19:1X:53:LYS:HB3	19:1X:82:GLN:HB3	1.76	0.68
1:2A:1376:C:OP1	61:2A:3731:HOH:O	2.11	0.68
1:2A:1508:A:H4'	1:2A:1509(A):A:C5	2.29	0.68
12:2Q:75:THR:HG21	12:2Q:87:LYS:HE3	1.74	0.68
32:2a:390:C:O3'	47:2p:28:ARG:NH2	2.26	0.68
38:2g:102:ARG:HG2	38:2g:106:GLN:HE21	1.58	0.68
50:2s:41:VAL:HG12	50:2s:44:MET:HG3	1.76	0.68
1:2A:1778:U:OP2	61:2A:3732:HOH:O	2.11	0.68
19:2X:53:LYS:HB3	19:2X:82:GLN:HB3	1.76	0.68
1:1A:994:C:OP1	16:1U:53:ARG:NH2	2.27	0.68
1:1A:2140:C:N3	1:1A:2151:G:O6	2.26	0.68
4:1E:18:ASP:OD2	15:1T:33:LYS:NZ	2.22	0.68
32:1a:1238:A:OP2	61:1a:1908:HOH:O	2.12	0.68
33:1b:106:LYS:H	33:1b:106:LYS:HD2	1.58	0.68
42:2k:99:GLN:HG2	42:2k:105:VAL:HG21	1.74	0.68
46:1o:39:LEU:HD13	46:1o:56:LEU:HB2	1.75	0.68
32:2a:1374:A:OP1	38:2g:36:LYS:NZ	2.26	0.68
52:2u:17:THR:O	52:2u:22:ARG:NH1	2.26	0.68
61:1A:4106:HOH:O	13:1R:3:HIS:NE2	2.26	0.68
32:1a:406:G:H21	35:1d:119:GLN:HE22	1.39	0.68
32:1a:853:G:O2'	61:1a:1907:HOH:O	2.11	0.68
37:1f:10:LEU:HD21	37:1f:61:LEU:HD22	1.75	0.68
24:22:65:ASN:OD1	24:22:69:ARG:NH1	2.27	0.68
1:1A:240:G:O6	61:1A:4112:HOH:O	2.07	0.68
1:2A:218:A:OP2	61:2A:3737:HOH:O	2.12	0.68
39:2h:51:VAL:HG11	39:2h:60:ARG:HD2	1.75	0.68
35:1d:88:VAL:HA	36:1e:97:GLY:HA3	1.76	0.67
1:2A:1315:C:OP2	61:2A:3708:HOH:O	2.12	0.67
1:2A:1754:C:OP1	15:2T:96:ARG:NH1	2.26	0.67
1:1A:1264:G:OP1	27:15:19:ARG:NH2	2.23	0.67
1:1A:2143:C:O2	1:1A:2148:G:N1	2.26	0.67
1:1A:380:U:OP1	61:1A:4118:HOH:O	2.11	0.67
1:1A:2183:C:H2'	1:1A:2184:G:C8	2.30	0.67
1:2A:1007:C:OP1	9:2N:35:ARG:NH1	2.27	0.67
1:2A:2712(A):A:OP2	61:2A:3739:HOH:O	2.12	0.67
1:2A:2753:A:N3	31:29:15:LYS:NZ	2.42	0.67
1:2A:2805:G:H2'	1:2A:2807:G:C8	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:48:G:N7	61:1A:4213:HOH:O	2.26	0.67
1:1A:588:U:H2'	1:1A:589:C:C6	2.30	0.67
1:1A:1567:A:OP2	3:1D:84:TYR:OH	2.11	0.67
1:1A:2042:A:N3	61:1A:4226:HOH:O	2.27	0.67
32:1a:236:G:OP1	48:1q:40:LYS:NZ	2.27	0.67
42:1k:31:THR:HG22	42:1k:42:TRP:HB2	1.76	0.67
1:1A:278:A:O2'	1:1A:279:C:OP1	2.10	0.67
37:1f:50:TYR:OH	49:1r:74:ARG:O	2.11	0.67
1:2A:652(T):C:H2'	1:2A:652(U):G:C8	2.30	0.67
5:2F:53:THR:HG22	5:2F:55:GLY:H	1.59	0.67
32:2a:978:A:O2'	32:2a:1322:C:N3	2.28	0.67
46:2o:39:LEU:HD13	46:2o:56:LEU:HB2	1.76	0.67
22:20:10:THR:HG23	22:20:12:ASN:H	1.58	0.67
32:2a:673:G:H2'	32:2a:674:G:C8	2.30	0.67
32:2a:976:G:H5'	32:2a:1358:U:O2'	1.94	0.67
1:1A:859:G:O6	61:1A:4115:HOH:O	2.10	0.67
1:1A:1013:C:OP2	61:1A:4121:HOH:O	2.12	0.67
1:1A:2233:U:OP1	61:1A:4119:HOH:O	2.11	0.67
33:1b:67:THR:HA	33:1b:90:MET:HE2	1.75	0.67
47:1p:5:ARG:HH21	47:1p:24:ALA:HA	1.60	0.67
1:2A:848:G:OP1	61:2A:3735:HOH:O	2.12	0.67
1:2A:2602:A:H4'	1:2A:2603:G:OP1	1.94	0.67
6:2G:5:VAL:HG22	6:2G:8:LYS:HB3	1.75	0.67
15:2T:30:VAL:HG22	15:2T:86:ILE:HG12	1.76	0.67
32:2a:593:G:H1	32:2a:646:U:H3	1.41	0.67
32:2a:1373:G:OP2	40:2i:42:ARG:NH2	2.28	0.67
17:1V:40:LEU:HB2	17:1V:46:VAL:HG13	1.76	0.67
44:1m:37:THR:O	44:1m:55:ARG:NH1	2.28	0.67
41:2j:51:ARG:O	45:2n:45:ARG:NH1	2.27	0.67
51:1t:57:ARG:HH12	51:1t:100:ILE:HD12	1.59	0.67
32:2a:980:C:OP2	61:2a:3208:HOH:O	2.12	0.67
35:2d:4:TYR:O	35:2d:5:ILE:HB	1.95	0.67
2:1B:85:G:O6	61:1B:301:HOH:O	2.10	0.66
32:1a:1525:G:OP1	42:1k:120:ARG:NH2	2.27	0.66
1:2A:562:U:OP1	61:2A:3742:HOH:O	2.13	0.66
1:2A:641:C:O2'	1:2A:2350:C:OP1	2.13	0.66
32:2a:662:G:H2'	32:2a:663:A:H8	1.59	0.66
1:1A:2027:G:OP2	61:1A:4120:HOH:O	2.12	0.66
32:1a:405:U:O4	35:1d:2:GLY:N	2.28	0.66
46:1o:18:PHE:HB2	46:1o:19:PRO:HD2	1.77	0.66
1:2A:321:G:OP1	5:2F:135:LYS:NZ	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2032:G:OP1	61:2A:3741:HOH:O	2.13	0.66
34:2c:36:ASP:HA	34:2c:39:ILE:HD12	1.77	0.66
1:1A:998:C:OP1	61:1A:4122:HOH:O	2.13	0.66
1:1A:1321:A:N1	61:1A:4240:HOH:O	2.28	0.66
2:1B:51:G:N7	14:1S:62:LYS:NZ	2.43	0.66
1:2A:1426:G:O2'	61:2A:3740:HOH:O	2.13	0.66
32:2a:769:G:H4'	32:2a:1513:A:H4'	1.77	0.66
32:2a:1508:G:OP1	61:2a:3203:HOH:O	2.12	0.66
33:2b:97:TRP:HZ2	33:2b:102:LEU:HD13	1.61	0.66
7:2H:164:TYR:HB2	7:2H:167:GLU:HB2	1.77	0.66
32:2a:1182:G:H4'	32:2a:1183:A:H3'	1.77	0.66
32:1a:1270:C:OP2	52:1u:24:ARG:NH2	2.29	0.66
1:2A:1009:A:OP2	61:2A:3738:HOH:O	2.12	0.66
1:2A:2134:A:H5''	1:2A:2156:G:H22	1.61	0.66
33:2b:119:GLU:OE1	33:2b:153:ARG:NH1	2.27	0.66
40:2i:22:GLY:H	40:2i:59:PHE:HA	1.60	0.66
1:1A:1266:G:O5'	18:1W:15:ARG:NH2	2.29	0.66
11:1P:42:SER:O	61:1P:302:HOH:O	2.13	0.66
1:2A:1507:A:O2'	1:2A:1508:A:O5'	2.14	0.66
21:2Z:144:LEU:HD21	21:2Z:150:LEU:HD13	1.77	0.66
1:1A:1175:U:OP1	1:1A:1177:A:N6	2.29	0.66
32:1a:573:A:OP2	61:1a:1902:HOH:O	2.14	0.66
49:1r:25:THR:OG1	49:1r:25:THR:O	2.12	0.66
1:2A:514:A:N3	1:2A:581:C:O2'	2.27	0.66
42:2k:117:ASN:N	42:2k:117:ASN:OD1	2.28	0.66
32:1a:8:A:N6	35:1d:205:GLU:O	2.29	0.66
38:1g:70:LYS:HB3	38:1g:96:GLN:HG2	1.78	0.66
1:2A:2641:G:P	9:2N:74:ARG:HH21	2.18	0.66
17:2V:78:LYS:O	61:2V:301:HOH:O	2.13	0.66
28:26:35:GLU:OE2	28:26:50:ARG:NH2	2.28	0.66
32:2a:656:C:O2'	46:2o:28:GLN:NE2	2.29	0.66
38:2g:20:ASP:OD2	38:2g:63:LYS:NZ	2.28	0.66
35:1d:59:ARG:HH12	35:1d:62:GLN:HB2	1.60	0.66
40:1i:9:ARG:HG2	40:1i:14:VAL:HG13	1.78	0.66
11:2P:42:SER:O	61:2P:301:HOH:O	2.14	0.66
32:2a:954:G:H21	32:2a:1227:A:H62	1.43	0.66
29:17:24:THR:HG23	29:17:27:GLY:H	1.61	0.66
32:1a:1003:G:C2	32:1a:1004:A:H1'	2.31	0.66
41:1j:5:ARG:NE	41:1j:73:ASP:OD1	2.25	0.66
44:1m:11:ARG:HA	44:1m:45:VAL:HB	1.78	0.66
1:2A:989:G:O2'	61:2A:3717:HOH:O	2.05	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1378:A:OP1	29:27:10:ARG:NH2	2.29	0.66
1:2A:2366:A:OP1	61:2A:3744:HOH:O	2.14	0.66
3:2D:134:ARG:NH1	3:2D:188:GLU:OE1	2.25	0.66
32:2a:676:A:H1'	42:2k:115:PRO:HB3	1.77	0.66
11:1P:11:GLY:O	61:1P:301:HOH:O	2.13	0.65
1:2A:1466:G:HO2'	1:2A:1546:C:HO2'	1.39	0.65
1:2A:2104:G:N2	1:2A:2105:C:N3	2.43	0.65
6:1G:49:ASP:O	6:1G:51:ARG:N	2.28	0.65
32:1a:945:G:OP1	61:1a:1910:HOH:O	2.13	0.65
1:2A:2683:C:O2	10:2O:70:LYS:NZ	2.23	0.65
2:2B:77:U:OP1	21:2Z:19:ARG:NH2	2.29	0.65
1:1A:655:A:OP1	61:1A:4124:HOH:O	2.14	0.65
1:1A:1960:A:OP2	61:1A:4126:HOH:O	2.14	0.65
32:1a:934:C:OP1	61:1a:1909:HOH:O	2.13	0.65
7:2H:3:ARG:HH11	7:2H:4:ILE:H	1.44	0.65
20:2Y:68:HIS:HB3	20:2Y:71:LYS:HD3	1.78	0.65
32:2a:1518:MA6:H93	32:2a:1519:MA6:H102	1.78	0.65
1:1A:1645:G:H5''	1:1A:1646:C:H5'	1.79	0.65
1:1A:1779:U:OP2	61:1A:4123:HOH:O	2.13	0.65
3:1D:88:ARG:NH1	61:1D:402:HOH:O	2.29	0.65
40:2i:16:ARG:HB2	40:2i:64:THR:HG22	1.79	0.65
1:1A:1566:A:N3	61:1A:4260:HOH:O	2.29	0.65
1:1A:2763:G:OP2	61:1A:4128:HOH:O	2.14	0.65
1:1A:2791:C:H2'	1:1A:2792:G:C8	2.31	0.65
1:2A:1852:C:N3	61:2A:3842:HOH:O	2.28	0.65
32:1a:347:G:C8	57:1a:1882:MPD:H53	2.32	0.65
34:1c:3:ASN:OD1	34:1c:3:ASN:N	2.30	0.65
34:1c:6:HIS:CD2	34:1c:9:GLY:H	2.15	0.65
1:2A:1793:C:OP1	61:2A:3748:HOH:O	2.15	0.65
1:1A:1670:C:OP2	61:1A:4103:HOH:O	2.14	0.65
3:1D:183:ARG:NH2	61:1D:403:HOH:O	2.29	0.65
23:11:52:ARG:NH2	23:11:55:GLY:O	2.28	0.65
32:1a:1069:C:OP2	61:1a:1913:HOH:O	2.15	0.65
1:2A:684:G:O3'	61:2A:3705:HOH:O	2.13	0.65
32:2a:130:A:H5'	48:2q:63:ARG:HE	1.62	0.65
32:1a:1077:G:N2	32:1a:1080:A:OP2	2.29	0.65
35:1d:162:LEU:HD13	35:1d:181:MET:HG2	1.78	0.65
1:2A:2255:G:OP2	61:2A:3743:HOH:O	2.13	0.65
21:2Z:23:LYS:NZ	21:2Z:40:ASP:OD1	2.28	0.65
1:1A:1762:A:N1	61:1A:4257:HOH:O	2.29	0.65
33:1b:69:LEU:HB3	33:1b:162:ILE:HG22	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1047:G:H2'	1:1A:1110:G:H22	1.62	0.64
1:1A:1173:G:O2'	1:1A:1174:A:O5'	2.15	0.64
32:1a:1027:C:H2'	32:1a:1028:C:C5	2.32	0.64
36:2e:100:VAL:O	36:2e:107:ARG:NH2	2.27	0.64
19:1X:41:ASN:O	19:1X:45:THR:HG23	1.97	0.64
32:1a:1010:G:N2	32:1a:1020:U:H1'	2.12	0.64
1:2A:761:A:OP1	61:2A:3751:HOH:O	2.15	0.64
1:2A:1281:G:N7	61:2A:3865:HOH:O	2.30	0.64
32:2a:300:A:N1	61:2a:3240:HOH:O	2.29	0.64
47:2p:18:ARG:HD3	47:2p:35:LYS:HD2	1.79	0.64
1:1A:1314:C:OP1	61:1A:4127:HOH:O	2.14	0.64
32:1a:1435:G:H2'	32:1a:1436:U:C6	2.33	0.64
1:2A:301:G:OP2	20:2Y:84:ARG:NH2	2.30	0.64
1:2A:323:G:OP2	61:2A:3747:HOH:O	2.14	0.64
1:2A:2842:G:N7	61:2A:3854:HOH:O	2.29	0.64
16:2U:5:LYS:NZ	61:2U:301:HOH:O	2.23	0.64
32:2a:17:U:H2'	32:2a:18:C:C6	2.31	0.64
32:2a:1456:G:N1	51:2t:51:GLU:OE2	2.28	0.64
51:2t:65:LYS:HA	51:2t:68:LYS:HD3	1.78	0.64
7:1H:124:GLU:HG3	7:1H:132:ARG:HB3	1.78	0.64
32:1a:730:G:N2	32:1a:766:A:OP1	2.25	0.64
38:1g:27:ILE:HD12	38:1g:40:ALA:HA	1.79	0.64
43:2l:70:ILE:HG12	43:2l:100:ILE:HD12	1.80	0.64
32:1a:1216:G:H5''	45:1n:5:ALA:HB2	1.79	0.64
50:1s:63:THR:OG1	50:1s:65:ASN:OD1	2.15	0.64
1:2A:1312:U:OP2	19:2X:63:LYS:NZ	2.31	0.64
32:2a:1030(A):G:N2	32:2a:1030(D):A:OP2	2.31	0.64
1:1A:2893:G:H4'	1:1A:2894:G:O5'	1.98	0.64
8:1I:40:THR:O	8:1I:44:LEU:HB2	1.98	0.64
32:1a:659:U:H5''	46:1o:9:GLN:HE22	1.62	0.64
1:2A:521:G:O6	61:2A:3746:HOH:O	2.14	0.64
1:2A:573:G:OP1	61:2A:3745:HOH:O	2.14	0.64
48:2q:43:LEU:HD22	48:2q:68:ARG:HG2	1.79	0.64
1:1A:2345:G:N3	1:1A:2381:C:H2'	2.13	0.64
1:2A:1025:G:C4	1:2A:1135:C:H1'	2.32	0.64
11:2P:54:GLY:O	61:2P:302:HOH:O	2.15	0.64
33:2b:16:HIS:HB2	33:2b:204:ASN:HB3	1.78	0.64
37:1f:99:ALA:HB1	49:1r:23:LYS:HE3	1.80	0.64
38:2g:15:ASP:OD1	38:2g:20:ASP:N	2.29	0.64
1:1A:307:G:H21	1:1A:330:A:H62	1.45	0.64
1:1A:604:G:OP2	11:1P:90:ARG:NH1	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:644:A:H4'	1:2A:645:C:H5	1.63	0.64
32:2a:1295:G:O2'	44:2m:14:ARG:NH1	2.31	0.64
33:2b:189:ASP:OD1	33:2b:189:ASP:N	2.30	0.64
49:2r:71:LYS:NZ	61:2r:201:HOH:O	2.29	0.64
1:1A:2093:G:H5'	8:1I:22:LYS:HD3	1.79	0.64
39:1h:120:THR:H	39:1h:123:GLU:HB2	1.62	0.64
1:2A:1257:C:OP2	61:2A:3754:HOH:O	2.15	0.64
50:2s:41:VAL:HG13	50:2s:43:GLU:H	1.63	0.64
1:1A:652(V):C:H2'	1:1A:653:A:C8	2.33	0.63
1:1A:2550:G:OP1	61:1A:4103:HOH:O	2.15	0.63
1:2A:489:G:N7	18:2W:49:LYS:NZ	2.45	0.63
1:1A:1030:G:OP1	61:1A:4131:HOH:O	2.15	0.63
1:1A:2628:C:O2	61:1A:4125:HOH:O	2.14	0.63
32:1a:162:A:H3'	32:1a:163:C:H4'	1.78	0.63
41:1j:35:SER:HB3	41:1j:73:ASP:HB2	1.79	0.63
1:1A:1359:A:H61	1:1A:1372:U:H3	1.45	0.63
1:1A:1721:G:H8	1:1A:1741:A:H62	1.46	0.63
1:1A:2316:C:O2'	6:1G:128:ARG:NH2	2.32	0.63
4:1E:89:ASP:OD1	4:1E:89:ASP:N	2.27	0.63
32:1a:1108:G:O6	61:1a:1911:HOH:O	2.13	0.63
1:2A:309:G:N3	1:2A:329:G:O2'	2.32	0.63
1:2A:362:U:O2'	1:2A:363:G:H5'	1.98	0.63
1:2A:2115:G:H2'	1:2A:2171:A:H62	1.63	0.63
32:2a:410:G:OP1	35:2d:30:LYS:NZ	2.24	0.63
33:2b:19:HIS:O	33:2b:20:GLU:HB2	1.96	0.63
1:1A:1937:A:H1'	1:1A:1939:5MU:H72	1.79	0.63
1:1A:2258:C:O2'	1:1A:2427:C:OP2	2.15	0.63
32:1a:803:G:OP1	61:1a:1912:HOH:O	2.15	0.63
36:1e:12:LEU:HD11	36:1e:14:ARG:HB3	1.80	0.63
1:2A:2690:C:OP1	13:2R:17:ARG:NH2	2.31	0.63
37:2f:35:ALA:HA	37:2f:67:MET:HB3	1.79	0.63
38:2g:135:VAL:HA	38:2g:138:LYS:HB3	1.80	0.63
1:1A:1796:U:H2'	1:1A:1797:C:C6	2.34	0.63
1:2A:990:A:OP2	61:2A:3728:HOH:O	2.15	0.63
1:2A:2316:C:O2'	6:2G:128:ARG:NH2	2.31	0.63
1:2A:2611:U:H6	1:2A:2611:U:H5'	1.63	0.63
23:11:46:LEU:HD11	23:11:61:ARG:HB3	1.81	0.63
1:2A:1041:C:H42	1:2A:1114:G:H1	1.45	0.63
46:2o:18:PHE:HB2	46:2o:19:PRO:HD2	1.80	0.63
1:2A:2467:C:H4'	12:2Q:123:HIS:CD2	2.34	0.63
5:2F:20:LEU:HD23	5:2F:21:ALA:H	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:718:G:C8	42:2k:116:HIS:HB3	2.34	0.63
32:2a:1505:G:OP2	61:2a:3204:HOH:O	2.15	0.63
50:1s:50:ALA:HB1	50:1s:57:HIS:HB3	1.79	0.63
25:23:54:VAL:O	61:23:201:HOH:O	2.15	0.63
32:2a:501:C:OP1	43:2l:117:ARG:NH2	2.31	0.63
33:2b:42:ILE:HD13	33:2b:203:GLY:HA2	1.80	0.63
32:1a:501:C:OP1	43:1l:117:ARG:NH2	2.32	0.62
38:1g:75:VAL:HG21	38:1g:144:MET:HG2	1.80	0.62
32:2a:1004:A:H5''	32:2a:1025:U:C4	2.34	0.62
5:1F:185:ASP:HA	5:1F:188:ARG:HD3	1.81	0.62
10:1O:64:ARG:HB2	10:1O:83:ALA:HB3	1.81	0.62
39:1h:95:VAL:HB	39:1h:99:GLU:HG3	1.81	0.62
1:2A:1064:C:H3'	1:2A:1065:U:C5'	2.29	0.62
2:2B:66:A:H61	2:2B:109:C:H5'	1.64	0.62
11:2P:59:LEU:HD11	30:28:10:ALA:HB2	1.80	0.62
13:2R:67:LEU:HD23	13:2R:76:VAL:HG21	1.81	0.62
32:2a:895:G:N7	61:2a:3243:HOH:O	2.30	0.62
1:1A:1178:C:H2'	1:1A:1179:C:C6	2.34	0.62
1:1A:2810:A:N6	1:1A:2891:G:O2'	2.31	0.62
6:1G:126:ASP:N	6:1G:130:ASN:O	2.30	0.62
32:1a:1291:G:OP1	38:1g:37:ASN:ND2	2.33	0.62
33:1b:48:MET:HE2	33:1b:48:MET:HA	1.82	0.62
37:2f:9:VAL:HB	37:2f:87:ARG:HB2	1.81	0.62
32:1a:1112:C:H1'	34:1c:179:ARG:HE	1.63	0.62
1:2A:2102:U:O2	1:2A:2187:G:O6	2.17	0.62
24:22:1:MET:N	24:22:52:ASP:OD1	2.32	0.62
2:1B:74:U:H1'	21:1Z:34:ASN:HD21	1.65	0.62
32:1a:1239:A:H62	32:1a:1299:A:N6	1.98	0.62
1:2A:1639:U:H2'	1:2A:1640:C:H5''	1.82	0.62
1:2A:2821:A:OP2	61:2R:301:HOH:O	2.16	0.62
13:2R:103:ARG:NH1	13:2R:108:GLY:O	2.32	0.62
20:2Y:7:VAL:HG11	20:2Y:13:VAL:HG11	1.81	0.62
32:2a:975:A:N1	41:2j:48:THR:HB	2.14	0.62
1:1A:1063:G:H1	1:1A:1075:C:N4	1.97	0.62
1:1A:1486:A:H2'	1:1A:1487:G:H8	1.65	0.62
28:16:2:ALA:N	61:16:601:HOH:O	2.33	0.62
32:1a:636:U:H2'	32:1a:637:G:C8	2.34	0.62
32:1a:673:G:H2'	32:1a:674:G:C8	2.35	0.62
1:2A:2564:A:N7	61:2A:3871:HOH:O	2.31	0.62
6:2G:126:ASP:HB3	6:2G:128:ARG:H	1.65	0.62
21:2Z:99:TYR:HB3	21:2Z:123:ASP:HB2	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:40:HIS:HB3	33:1b:190:THR:HG21	1.80	0.62
1:2A:1803:A:O2'	3:2D:259:THR:HG21	1.99	0.62
6:2G:8:LYS:HG3	6:2G:12:TYR:HE2	1.65	0.62
32:2a:289:G:OP2	61:2a:3213:HOH:O	2.16	0.62
33:2b:158:LEU:HD21	33:2b:180:LEU:HD13	1.82	0.62
1:1A:1227:G:OP2	16:1U:16:LYS:NZ	2.30	0.62
1:1A:2126:A:H4'	1:1A:2127:G:O5'	1.99	0.62
32:1a:102:G:O2'	32:1a:151:A:N3	2.28	0.62
44:1m:58:GLU:O	44:1m:62:ASN:ND2	2.32	0.62
38:2g:69:VAL:HG22	38:2g:135:VAL:HG12	1.81	0.62
1:1A:614(A):U:H5''	58:1F:318:ARG:HB3	1.81	0.62
1:1A:2183:C:H2'	1:1A:2184:G:H8	1.64	0.62
32:1a:460:G:N2	32:1a:471:G:N7	2.48	0.62
32:2a:108:G:C6	51:2t:15:ARG:HG2	2.35	0.62
32:2a:662:G:H2'	32:2a:663:A:C8	2.35	0.62
15:1T:39:ARG:HH21	32:1a:345:C:H5''	1.65	0.62
1:2A:821:A:H2'	1:2A:946:G:H5''	1.82	0.62
1:1A:1057:A:N1	1:1A:1081:U:O4	2.33	0.61
32:1a:96:U:H2'	32:1a:97:G:C8	2.35	0.61
32:1a:1103:C:OP1	33:1b:96:ARG:NH2	2.33	0.61
33:1b:73:THR:OG1	33:1b:170:GLU:OE2	2.15	0.61
1:2A:621:A:OP2	11:2P:108:LYS:NZ	2.31	0.61
1:2A:1541:G:O6	61:2A:3749:HOH:O	2.15	0.61
3:2D:108:PRO:HB3	3:2D:143:HIS:CE1	2.34	0.61
6:2G:63:ILE:HG22	6:2G:64:THR:HG23	1.81	0.61
32:2a:607:A:OP1	61:2a:3214:HOH:O	2.16	0.61
32:2a:1071:C:H2'	32:2a:1072:G:H8	1.64	0.61
53:2y:56:THR:HG23	53:2y:58:ASN:H	1.65	0.61
40:1i:20:ARG:O	40:1i:60:ASP:N	2.29	0.61
50:1s:3:ARG:HH11	50:1s:10:PHE:HB2	1.65	0.61
1:2A:1053:C:H2'	1:2A:1054:A:H8	1.65	0.61
2:2B:17:C:H2'	2:2B:18:G:O4'	2.00	0.61
6:2G:115:ARG:HD3	6:2G:136:ARG:HH21	1.65	0.61
27:25:40:LYS:NZ	27:25:44:THR:O	2.33	0.61
32:2a:794:A:OP2	61:2a:3212:HOH:O	2.16	0.61
36:2e:12:LEU:HD11	36:2e:14:ARG:HB3	1.82	0.61
44:2m:23:TYR:HB3	44:2m:67:GLU:HA	1.82	0.61
1:1A:1641:A:OP2	61:1A:4135:HOH:O	2.16	0.61
32:2a:41:G:H2'	32:2a:42:G:C8	2.34	0.61
32:2a:1316:G:H22	32:2a:1319:A:H5''	1.65	0.61
1:1A:548:A:O2'	1:1A:549:G:OP1	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:48:A:H4'	14:1S:95:HIS:HD2	1.64	0.61
5:1F:12:LEU:HD13	5:1F:124:LEU:HD11	1.82	0.61
24:12:1:MET:N	24:12:52:ASP:OD2	2.27	0.61
42:1k:33:THR:HA	42:1k:39:PRO:HA	1.81	0.61
21:2Z:54:HIS:HE2	21:2Z:123:ASP:HB3	1.65	0.61
1:1A:1113:U:H2'	1:1A:1114:G:C8	2.34	0.61
1:1A:2328:A:H2'	1:1A:2329:G:C8	2.36	0.61
1:1A:2447:G:OP2	61:1A:4134:HOH:O	2.16	0.61
32:1a:612:C:O2	32:1a:629:G:N2	2.33	0.61
12:2Q:29:PHE:O	21:2Z:122:ARG:NH2	2.33	0.61
39:2h:21:LYS:O	39:2h:65:TYR:OH	2.17	0.61
21:1Z:144:LEU:HD21	21:1Z:150:LEU:HD13	1.81	0.61
32:1a:596:C:N3	32:1a:644:G:N1	2.42	0.61
1:2A:2112:G:H2'	1:2A:2113:U:C6	2.35	0.61
1:2A:2126:A:H4'	1:2A:2127:G:O5'	2.01	0.61
5:2F:132:VAL:HG21	5:2F:163:VAL:HG22	1.82	0.61
32:2a:1203:C:H2'	32:2a:1204:A:H8	1.65	0.61
32:2a:1289:A:N1	32:2a:1371:G:O2'	2.31	0.61
1:1A:2882:A:OP1	13:1R:96:ARG:NH1	2.32	0.61
11:1P:59:LEU:HD11	30:18:10:ALA:HB2	1.81	0.61
16:1U:51:LYS:NZ	61:1U:301:HOH:O	2.21	0.61
32:2a:1172:C:H2'	32:2a:1173:G:C8	2.36	0.61
34:2c:6:HIS:NE2	34:2c:8:ILE:HB	2.16	0.61
1:1A:2023:G:H5'	1:1A:2617:C:H4'	1.81	0.61
19:1X:43:VAL:HG21	19:1X:81:VAL:HG11	1.83	0.61
24:12:14:ARG:O	24:12:67:LYS:NZ	2.34	0.61
37:1f:23:LYS:HG2	37:1f:61:LEU:HD21	1.83	0.61
1:2A:692:C:O2'	3:2D:38:LYS:NZ	2.31	0.61
5:2F:192:LEU:HD13	5:2F:194:MET:HE2	1.81	0.61
6:1G:43:LEU:O	6:1G:45:GLU:N	2.34	0.61
18:1W:68:ARG:HH21	18:1W:112:GLY:H	1.49	0.61
1:2A:245:G:O6	30:28:8:LYS:NZ	2.34	0.61
4:2E:89:ASP:OD1	4:2E:89:ASP:N	2.32	0.61
32:2a:134:A:N6	47:2p:25:ARG:HH22	1.99	0.61
44:2m:58:GLU:O	44:2m:62:ASN:ND2	2.33	0.61
1:1A:759:G:N7	61:1A:4275:HOH:O	2.31	0.61
1:1A:2153:G:H2'	1:1A:2154:G:C8	2.36	0.61
3:1D:113:VAL:HG12	61:1D:474:HOH:O	2.00	0.61
19:1X:80:ILE:O	61:1X:101:HOH:O	2.15	0.61
22:10:27:GLU:HG3	22:10:68:GLU:HA	1.83	0.61
1:2A:2149:G:C2	1:2A:2150:U:H1'	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:2d:166:LYS:HA	35:2d:178:VAL:HG21	1.82	0.61
1:1A:1176:G:H1'	1:1A:1177:A:H5''	1.82	0.60
7:1H:56:SER:OG	7:1H:61:HIS:ND1	2.32	0.60
8:2I:92:VAL:HB	8:2I:120:ILE:HB	1.83	0.60
10:2O:24:VAL:HG13	10:2O:33:ALA:HB2	1.83	0.60
32:2a:41:G:H2'	32:2a:42:G:H8	1.66	0.60
1:1A:888:C:H5'	44:1m:93:ARG:HD2	1.81	0.60
1:1A:1877:A:H5'	1:1A:1878:G:OP2	2.01	0.60
46:1o:9:GLN:HA	46:1o:12:ILE:HD12	1.83	0.60
1:2A:652(B):A:H61	1:2A:655:A:HO2'	1.48	0.60
1:2A:2810:A:N6	1:2A:2891:G:O2'	2.33	0.60
6:2G:109:VAL:HG21	26:24:14:ILE:HG21	1.82	0.60
7:2H:25:LYS:HB3	7:2H:27:LYS:HZ1	1.66	0.60
32:2a:1226:C:OP2	44:2m:91:ARG:NH1	2.34	0.60
34:2c:128:PHE:HD1	34:2c:129:ALA:H	1.48	0.60
37:2f:3:ARG:HB3	37:2f:93:SER:HB2	1.84	0.60
1:1A:1671:U:O4	61:1A:4103:HOH:O	2.12	0.60
32:1a:1318:A:OP1	50:1s:3:ARG:NH2	2.34	0.60
35:1d:60:GLU:HG3	35:1d:202:LEU:HD12	1.83	0.60
1:2A:752:A:H3'	29:27:1:MET:HE1	1.83	0.60
6:2G:46:ALA:HB1	6:2G:51:ARG:HA	1.82	0.60
1:1A:2327:A:H2'	1:1A:2328:A:C8	2.37	0.60
5:1F:116:ASP:OD1	5:1F:119:ARG:NH2	2.34	0.60
43:1l:60:LEU:HD12	43:1l:64:TYR:HB2	1.83	0.60
53:1y:55:ASN:OD1	53:1y:60:VAL:HG12	2.01	0.60
4:2E:2:LYS:HB2	4:2E:95:ILE:HD12	1.82	0.60
32:2a:406:G:H21	35:2d:119:GLN:HE22	1.49	0.60
38:2g:27:ILE:HD12	38:2g:40:ALA:HA	1.82	0.60
8:1I:123:LEU:HD23	8:1I:144:VAL:HG12	1.82	0.60
35:1d:155:LEU:HB3	35:1d:158:ILE:HG12	1.82	0.60
48:1q:67:LYS:O	48:1q:69:LYS:N	2.34	0.60
1:2A:249:C:O2	30:28:12:LYS:NZ	2.32	0.60
7:2H:42:ARG:HG2	7:2H:53:GLU:HB2	1.81	0.60
32:2a:266:G:N3	32:2a:266:G:H5''	2.16	0.60
32:2a:1366:C:O2'	41:2j:60:ARG:NH2	2.35	0.60
3:1D:69:ARG:NH2	3:1D:128:GLY:O	2.35	0.60
20:1Y:92:ASN:N	20:1Y:93:GLY:HA2	2.16	0.60
32:1a:1149:C:OP1	40:1i:9:ARG:NE	2.35	0.60
46:1o:55:GLY:HA2	46:1o:58:MET:HE3	1.83	0.60
5:2F:157:VAL:HB	5:2F:194:MET:HG2	1.82	0.60
53:2y:43:LYS:HA	53:2y:48:PHE:HA	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1803:A:O2'	3:1D:259:THR:HG21	2.01	0.60
1:1A:2153:G:H2'	1:1A:2154:G:H8	1.66	0.60
1:1A:2319:G:H22	14:1S:3:ARG:NH1	1.99	0.60
32:1a:1158:C:H5	32:1a:1181:G:N1	1.99	0.60
1:2A:2100:G:H1	1:2A:2189:U:H3	1.49	0.60
4:2E:116:VAL:HG13	4:2E:122:PHE:HB2	1.84	0.60
6:2G:64:THR:HB	6:2G:94:LEU:HD11	1.84	0.60
50:2s:30:LEU:HD11	50:2s:50:ALA:HB2	1.84	0.60
32:1a:1029:C:N3	32:1a:1032:G:O6	2.35	0.60
53:1y:49:VAL:HG22	53:1y:66:LYS:HG2	1.84	0.60
1:2A:495:G:N3	18:2W:61:ASN:ND2	2.49	0.60
1:2A:2748:A:H5'	7:2H:4:ILE:HD12	1.84	0.60
40:2i:53:VAL:O	40:2i:55:ALA:N	2.35	0.60
1:1A:1176:G:H21	1:1A:1178:C:P	2.24	0.60
1:1A:1840:G:N7	61:1A:4299:HOH:O	2.32	0.60
14:1S:84:GLN:HG2	14:1S:111:GLU:HB2	1.83	0.60
32:1a:1414:U:H3	32:1a:1486:G:H1	1.50	0.60
33:1b:123:ALA:O	33:1b:124:SER:HB2	2.02	0.60
34:1c:29:TYR:OH	45:1n:54:PRO:O	2.20	0.60
1:2A:668:G:H5'	1:2A:669:G:OP2	2.02	0.60
37:2f:50:TYR:CE2	49:2r:77:GLY:HA2	2.37	0.60
40:2i:71:SER:HA	40:2i:74:ILE:HD12	1.83	0.60
1:1A:1332:G:OP1	61:1A:4127:HOH:O	2.17	0.59
2:1B:66:A:H61	2:1B:108:U:H2'	1.67	0.59
5:1F:64:ILE:HG21	5:1F:78:ILE:HG23	1.84	0.59
33:1b:84:GLU:OE1	33:1b:87:ARG:NH1	2.34	0.59
35:1d:15:GLU:OE2	35:1d:59:ARG:NH1	2.35	0.59
1:2A:1014:U:H2'	1:2A:1015:G:H8	1.67	0.59
1:2A:1064:C:H3'	1:2A:1065:U:H5'	1.83	0.59
1:2A:1840:G:OP2	61:2A:3758:HOH:O	2.17	0.59
1:2A:2206:G:H3'	1:2A:2207:G:H8	1.66	0.59
61:2A:3748:HOH:O	32:2a:773:G:OP1	2.16	0.59
32:2a:642:A:N3	39:2h:113:SER:OG	2.34	0.59
32:2a:1172:C:H2'	32:2a:1173:G:H8	1.67	0.59
1:1A:2390:U:OP2	61:1A:4132:HOH:O	2.15	0.59
32:1a:1442:G:H2'	32:1a:1442:G:N3	2.17	0.59
39:1h:86:ILE:HG13	39:1h:133:LEU:HD22	1.85	0.59
40:1i:50:LEU:HB2	40:1i:55:ALA:HB3	1.84	0.59
1:2A:2134:A:H5''	1:2A:2156:G:N2	2.17	0.59
23:21:59:THR:O	23:21:91:LYS:NZ	2.35	0.59
32:2a:1027:C:H5''	32:2a:1028:C:C5	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2331:G:O2'	1:1A:2336:A:N1	2.32	0.59
32:1a:1183:A:H3'	32:1a:1184:G:H5''	1.84	0.59
39:1h:14:ARG:O	39:1h:18:ARG:HG2	2.02	0.59
1:2A:1264:G:OP2	61:2A:3761:HOH:O	2.17	0.59
1:2A:1364:G:OP2	23:21:3:LYS:HG3	2.02	0.59
1:2A:2059:A:OP2	61:2A:3759:HOH:O	2.17	0.59
1:2A:2646:C:H2'	1:2A:2647:U:O4'	2.03	0.59
26:24:59:PHE:HB3	26:24:61:ARG:HG2	1.83	0.59
36:2e:78:HIS:CE1	36:2e:142:LEU:HD23	2.38	0.59
1:1A:400:G:O6	61:1A:4133:HOH:O	2.15	0.59
1:1A:1340:U:OP1	19:1X:16:LYS:NZ	2.32	0.59
13:1R:2:ARG:HG2	13:1R:5:LYS:HB2	1.83	0.59
13:1R:33:ARG:NH2	27:15:57:VAL:O	2.34	0.59
14:1S:27:SER:HA	14:1S:88:ASP:HB3	1.84	0.59
32:1a:607:A:H2'	32:1a:608:A:C8	2.37	0.59
1:2A:922:U:H2'	1:2A:923:C:C6	2.37	0.59
18:2W:1:MET:HE3	18:2W:62:HIS:HB3	1.84	0.59
40:2i:9:ARG:HG2	40:2i:14:VAL:HG12	1.83	0.59
44:2m:91:ARG:NE	44:2m:97:PRO:O	2.34	0.59
1:1A:1011:G:OP1	16:1U:77:SER:OG	2.21	0.59
8:1I:60:GLU:HG3	8:1I:61:ARG:NH1	2.17	0.59
8:1I:109:ILE:HG13	8:1I:130:TYR:CZ	2.37	0.59
36:1e:143:ARG:NH1	39:1h:77:GLU:OE2	2.35	0.59
49:1r:37:VAL:HG22	49:1r:78:LEU:HB3	1.85	0.59
32:2a:1318:A:H5''	50:2s:3:ARG:NH2	2.15	0.59
32:2a:1435:G:H2'	32:2a:1436:U:C6	2.37	0.59
32:2a:1510:U:H2'	32:2a:1511:G:C8	2.37	0.59
49:2r:25:THR:O	49:2r:25:THR:OG1	2.15	0.59
1:1A:184:C:H2'	1:1A:185:U:C6	2.37	0.59
1:1A:1068:G:HO2'	1:1A:1096:A:HO2'	1.48	0.59
1:1A:1856:G:OP2	61:1A:4139:HOH:O	2.17	0.59
25:13:7:LYS:HE3	25:13:32:GLN:HE21	1.66	0.59
19:2X:46:ALA:HB1	24:22:33:MET:HE1	1.83	0.59
32:2a:1314:C:N4	50:2s:2:PRO:O	2.35	0.59
38:2g:126:ASP:HB3	38:2g:131:LYS:HB2	1.84	0.59
48:2q:67:LYS:O	48:2q:69:LYS:N	2.34	0.59
1:1A:1063:G:H1	1:1A:1075:C:H42	1.47	0.59
1:1A:2138:C:N3	1:1A:2139:C:N4	2.51	0.59
5:1F:30:PRO:HB3	11:1P:1:MET:HE1	1.85	0.59
32:1a:718:G:H5'	42:1k:117:ASN:HB2	1.85	0.59
1:2A:2267:A:H5''	1:2A:2268:A:H5'	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:649:G:O6	61:2a:3211:HOH:O	2.14	0.59
1:1A:520:G:N7	61:1A:4271:HOH:O	2.30	0.59
1:1A:1067:A:H3'	1:1A:1067:A:N3	2.18	0.59
5:1F:195:ASP:HB2	5:1F:198:ALA:H	1.67	0.59
23:11:73:LEU:HB3	23:11:94:LEU:HD13	1.84	0.59
32:1a:54:C:N4	32:1a:353:A:OP2	2.35	0.59
1:2A:2782:G:OP2	61:2A:3760:HOH:O	2.17	0.59
6:2G:97:ASP:HA	6:2G:100:TRP:HD1	1.67	0.59
32:2a:1512:U:H2'	32:2a:1513:A:C8	2.38	0.59
1:1A:404:C:OP1	61:1A:4138:HOH:O	2.17	0.59
1:1A:1405:U:H2'	1:1A:1406:U:C6	2.38	0.59
32:1a:316:G:OP2	32:1a:351:G:O2'	2.21	0.59
32:1a:1510:U:H2'	32:1a:1511:G:C8	2.38	0.59
1:2A:119:A:H4'	1:2A:120:U:OP1	2.03	0.59
9:2N:137:LYS:NZ	9:2N:139:GLU:OE2	2.36	0.59
32:2a:164:U:H2'	32:2a:165:C:C6	2.38	0.59
32:2a:1086:U:H3	32:2a:1099:G:H22	1.50	0.59
32:2a:1423:G:H2'	32:2a:1424:C:H6	1.67	0.59
1:1A:2303:G:O2'	6:1G:132:ASN:ND2	2.35	0.59
32:1a:933:G:O6	38:1g:3:ARG:NH2	2.35	0.59
32:1a:1144:G:N2	32:1a:1146:A:H62	2.01	0.59
32:1a:1240:U:OP2	38:1g:116:ALA:N	2.36	0.59
35:1d:156:GLU:O	35:1d:160:GLN:HG2	2.03	0.59
41:1j:46:ARG:HE	41:1j:64:GLU:HB3	1.68	0.59
32:2a:662:G:O2'	32:2a:836:G:OP1	2.21	0.59
1:1A:1359:A:N6	1:1A:1372:U:H3	2.00	0.58
4:1E:7:VAL:HG13	4:1E:27:LEU:HB3	1.85	0.58
32:1a:17:U:H2'	32:1a:18:C:C6	2.38	0.58
32:1a:828:A:H2'	32:1a:829:G:O4'	2.03	0.58
32:1a:1495:U:OP1	53:1y:23:ARG:NH2	2.33	0.58
40:1i:79:LEU:HD22	40:1i:104:ARG:HB2	1.84	0.58
1:2A:2253:G:O6	61:2A:3753:HOH:O	2.15	0.58
1:2A:2645:G:N2	1:2A:2767:C:OP2	2.36	0.58
5:2F:107:LYS:NZ	5:2F:205:ARG:O	2.36	0.58
7:2H:20:ALA:HB3	7:2H:23:ARG:HB2	1.85	0.58
11:2P:88:LEU:HD22	11:2P:95:VAL:HG11	1.85	0.58
32:2a:476:G:H2'	32:2a:477:A:H8	1.67	0.58
32:2a:944:G:N1	32:2a:1338:G:OP2	2.31	0.58
1:1A:247:G:H4'	1:1A:386:G:C5	2.37	0.58
1:1A:286:C:H2'	1:1A:287:C:H6	1.67	0.58
1:1A:1175:U:O3'	1:1A:1176:G:H4'	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2373:G:N7	61:1A:4303:HOH:O	2.32	0.58
2:1B:92:C:OP1	21:1Z:79:ARG:NH1	2.36	0.58
32:1a:352:C:O2'	32:1a:354:G:OP1	2.21	0.58
32:1a:1305:G:N2	32:1a:1331:G:H1'	2.19	0.58
33:1b:165:VAL:O	33:1b:205:ASP:HB2	2.03	0.58
44:1m:9:ILE:HB	44:1m:18:ALA:HB1	1.84	0.58
49:1r:52:PRO:HB2	49:1r:54:ARG:HG3	1.83	0.58
1:2A:271(E):U:H2'	1:2A:271(F):C:C6	2.38	0.58
1:2A:588:U:OP2	61:2A:3763:HOH:O	2.17	0.58
1:2A:954:G:H5''	12:2Q:13:GLN:HB3	1.85	0.58
32:2a:1003:G:H3'	32:2a:1003:G:N3	2.18	0.58
32:2a:1032:G:H2'	32:2a:1033:G:H5'	1.85	0.58
32:2a:1097:C:O2'	32:2a:1169:A:N3	2.31	0.58
33:2b:47:THR:HB	33:2b:202:PRO:HG2	1.84	0.58
1:1A:631:A:OP1	11:1P:65:ARG:NH1	2.34	0.58
1:1A:1352:U:OP1	61:1A:4137:HOH:O	2.16	0.58
1:1A:2133:G:H3'	1:1A:2157:G:H21	1.69	0.58
32:1a:1202:G:O4'	45:1n:29:ARG:NH1	2.33	0.58
40:1i:92:TYR:O	40:1i:96:LEU:HB2	2.02	0.58
6:2G:74:LYS:O	6:2G:84:LYS:NZ	2.36	0.58
35:2d:64:LEU:HB2	35:2d:198:VAL:HG11	1.85	0.58
1:1A:639:U:H2'	1:1A:640:C:C6	2.37	0.58
45:1n:26:ARG:HD3	45:1n:43:CYS:HB3	1.84	0.58
32:2a:901:A:O2'	32:2a:1513:A:OP1	2.17	0.58
36:2e:57:LYS:HG2	36:2e:61:TYR:CE2	2.36	0.58
49:2r:40:LEU:HB3	49:2r:79:LEU:HD11	1.86	0.58
1:1A:760:G:OP1	61:1A:4141:HOH:O	2.17	0.58
1:1A:784:A:C5	3:1D:229:VAL:HG21	2.39	0.58
1:1A:2689:U:H4'	1:1A:2690:C:H5'	1.85	0.58
6:1G:142:PRO:HB2	26:14:31:ILE:HG21	1.85	0.58
32:1a:539:A:N7	43:1l:115:LYS:NZ	2.47	0.58
32:1a:978:A:O2'	32:1a:1322:C:N3	2.34	0.58
32:1a:1003:G:N2	32:1a:1004:A:H1'	2.19	0.58
36:1e:69:VAL:O	36:1e:71:LEU:N	2.36	0.58
1:2A:1593:G:H2'	1:2A:1594:G:C8	2.38	0.58
1:2A:1796:U:H2'	1:2A:1797:C:C6	2.39	0.58
35:2d:79:PHE:HE1	35:2d:204:ILE:HD13	1.69	0.58
42:2k:18:ARG:NH2	42:2k:35:PRO:O	2.34	0.58
1:1A:1064:C:N3	1:1A:1074:G:O6	2.37	0.58
1:1A:1385:G:O2'	1:1A:1396:U:O2	2.20	0.58
1:2A:1319:G:O6	61:2A:3750:HOH:O	2.15	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1833:U:O2'	1:2A:1969:A:N1	2.34	0.58
1:2A:2104:G:N2	1:2A:2105:C:C4	2.69	0.58
28:26:12:GLU:OE1	28:26:19:ARG:NH1	2.37	0.58
32:2a:942:G:N2	40:2i:124:GLN:OE1	2.32	0.58
34:2c:153:VAL:HG22	34:2c:198:VAL:HG22	1.85	0.58
1:1A:2228:G:OP1	3:1D:261:LYS:NZ	2.27	0.58
32:1a:96:U:H2'	32:1a:97:G:H8	1.68	0.58
38:1g:41:ARG:O	38:1g:45:ASP:HB2	2.03	0.58
1:2A:304:G:O6	61:2A:3736:HOH:O	2.12	0.58
1:2A:631:A:N3	1:2A:2415:G:O2'	2.35	0.58
46:2o:82:ILE:HD12	46:2o:88:ARG:HB2	1.84	0.58
1:1A:286:C:H2'	1:1A:287:C:C6	2.39	0.58
1:1A:1055:G:O6	1:1A:1104:C:N3	2.37	0.58
5:1F:129:PHE:CD2	5:1F:163:VAL:HG21	2.38	0.58
10:1O:73:ASP:HB2	15:1T:82:LEU:HD13	1.86	0.58
32:1a:1015:A:H2'	32:1a:1016:A:C8	2.39	0.58
36:1e:110:LEU:HD13	36:1e:118:ILE:HG21	1.86	0.58
1:2A:2280:G:H5'	21:2Z:201:LYS:HD2	1.86	0.58
2:1B:103:G:H21	21:1Z:73:GLN:HE22	1.51	0.58
25:13:39:ASP:OD2	25:13:44:ARG:NH2	2.37	0.58
32:1a:171:A:H2'	32:1a:172:A:C8	2.39	0.58
44:1m:86:CYS:HB2	50:1s:73:GLU:HB3	1.86	0.58
1:2A:1166:C:H2'	1:2A:1167:U:C6	2.39	0.58
1:2A:2328:A:H2'	1:2A:2329:G:C8	2.38	0.58
5:2F:33:LEU:HD13	5:2F:112:MET:HE3	1.86	0.58
32:2a:1146:A:H3'	32:2a:1147:C:H5''	1.85	0.58
32:2a:1512:U:H2'	32:2a:1513:A:H8	1.68	0.58
33:2b:174:VAL:O	33:2b:178:ARG:HG2	2.04	0.58
35:2d:162:LEU:HD22	35:2d:178:VAL:HG13	1.85	0.58
44:2m:88:ARG:O	44:2m:92:HIS:ND1	2.37	0.58
1:1A:83:G:O6	61:1A:4129:HOH:O	2.15	0.58
1:1A:620:G:N3	1:1A:620:G:H5'	2.19	0.58
1:1A:2079:U:O3'	23:11:35:THR:OG1	2.21	0.58
20:1Y:92:ASN:HB2	20:1Y:94:LYS:N	2.14	0.58
39:1h:4:ASP:OD1	39:1h:85:ARG:NH1	2.37	0.58
1:2A:323:G:O2'	1:2A:1205:U:N3	2.31	0.58
11:2P:83:VAL:O	11:2P:115:LEU:N	2.36	0.58
16:2U:49:HIS:HA	16:2U:52:ARG:HG2	1.86	0.58
32:2a:1083:U:OP2	61:2a:3216:HOH:O	2.17	0.58
34:2c:73:PRO:O	34:2c:77:ILE:HG12	2.04	0.58
30:18:64:TYR:O	61:18:201:HOH:O	2.17	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:757:U:H2'	32:1a:758:G:O4'	2.04	0.57
1:2A:1073:A:H2'	1:2A:1074:G:H8	1.67	0.57
1:2A:1405:U:H2'	1:2A:1406:U:C6	2.39	0.57
1:2A:2612:C:OP2	27:25:2:ALA:N	2.37	0.57
13:2R:96:ARG:HH21	13:2R:117:VAL:HG22	1.69	0.57
32:2a:1388:C:O2'	61:2a:3218:HOH:O	2.17	0.57
33:2b:162:ILE:HD11	33:2b:184:VAL:HG22	1.86	0.57
1:1A:1381:G:N7	61:1A:4290:HOH:O	2.31	0.57
3:1D:106:ILE:HG12	61:1D:483:HOH:O	2.04	0.57
20:1Y:102:CYS:SG	20:1Y:103:GLY:N	2.77	0.57
32:1a:745:C:H2'	32:1a:746:A:C8	2.38	0.57
32:1a:1129:C:H5''	40:1i:16:ARG:HH12	1.69	0.57
1:2A:2139:C:H42	1:2A:2152:G:H1	1.51	0.57
1:2A:2525:G:O6	61:2A:3757:HOH:O	2.17	0.57
8:2I:104:GLN:HG2	8:2I:105:HIS:CD2	2.39	0.57
32:2a:1347:G:N2	32:2a:1373:G:H2'	2.18	0.57
1:1A:219:G:OP2	61:1A:4146:HOH:O	2.18	0.57
1:1A:1315:C:O2'	1:1A:1392:A:N3	2.34	0.57
1:1A:2611:U:H5'	1:1A:2611:U:H6	1.70	0.57
1:1A:2844:G:O6	61:1A:4142:HOH:O	2.17	0.57
5:1F:140:LEU:HD13	5:1F:170:LEU:HD21	1.87	0.57
32:1a:35:G:H21	43:1l:118:SER:HB2	1.69	0.57
1:2A:1044:G:O2'	1:2A:1048:A:H1'	2.04	0.57
1:2A:2584:U:H2'	1:2A:2585:U:H2'	1.87	0.57
5:2F:154:VAL:HG22	5:2F:191:ARG:HB2	1.86	0.57
38:2g:54:THR:O	38:2g:56:GLN:N	2.37	0.57
13:1R:28:LEU:HD23	13:1R:48:VAL:HG21	1.87	0.57
1:2A:456:C:O2'	19:2X:68:ARG:NH1	2.37	0.57
1:2A:775:G:OP1	61:2A:3764:HOH:O	2.17	0.57
1:2A:1451:C:H4'	1:2A:1452:A:C8	2.40	0.57
3:2D:268:ARG:NE	61:2D:408:HOH:O	2.37	0.57
32:2a:986:A:N3	50:2s:52:TYR:OH	2.35	0.57
32:2a:1423:G:H2'	32:2a:1424:C:C6	2.40	0.57
33:2b:74:LYS:NZ	33:2b:205:ASP:O	2.38	0.57
47:2p:28:ARG:NH1	47:2p:29:ASP:OD2	2.37	0.57
49:2r:52:PRO:HB2	49:2r:54:ARG:HG3	1.87	0.57
50:2s:11:VAL:HG12	50:2s:12:ASP:H	1.70	0.57
51:2t:50:GLU:HB2	51:2t:99:LEU:HD12	1.86	0.57
1:1A:226:G:H21	1:1A:228:A:H62	1.52	0.57
1:1A:2419:U:OP1	61:1A:4144:HOH:O	2.17	0.57
20:1Y:92:ASN:H	20:1Y:92:ASN:HD22	1.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:15:ILE:HB	26:14:32:TYR:HD1	1.67	0.57
30:18:62:LEU:HB3	30:18:65:GLU:HG2	1.86	0.57
51:1t:92:LEU:O	51:1t:96:GLY:N	2.37	0.57
1:2A:857:C:OP2	22:20:77:ARG:NH2	2.37	0.57
1:2A:1076:C:H1'	1:2A:1077:A:H5'	1.86	0.57
6:2G:16:ARG:CZ	6:2G:31:VAL:HG21	2.35	0.57
34:2c:6:HIS:HD2	45:2n:49:HIS:HB3	1.70	0.57
1:1A:2682:U:O2'	15:1T:58:ASN:ND2	2.38	0.57
26:14:15:ILE:HB	26:14:32:TYR:CD1	2.40	0.57
32:1a:78:G:H1	32:1a:91:C:H42	1.51	0.57
33:1b:115:LEU:O	33:1b:119:GLU:HG2	2.04	0.57
40:1i:46:ALA:HB2	40:1i:74:ILE:HG23	1.85	0.57
1:2A:607:U:OP1	5:2F:102:PRO:HA	2.04	0.57
1:2A:1507:A:O2'	1:2A:1508:A:O4'	2.21	0.57
1:2A:2693:A:H2'	1:2A:2694:G:H8	1.70	0.57
32:2a:1271:G:O2'	61:2a:3215:HOH:O	2.16	0.57
1:1A:2102:U:C2	1:1A:2187:G:O6	2.57	0.57
32:1a:890:G:O2'	32:1a:906:G:O6	2.18	0.57
32:2a:545:C:O2'	32:2a:549:C:OP1	2.20	0.57
33:2b:15:VAL:HG23	33:2b:16:HIS:HD2	1.69	0.57
3:1D:148:GLU:HB2	3:1D:151:LYS:HD2	1.84	0.57
32:1a:1124:G:N7	32:1a:1145:C:O2'	2.38	0.57
49:1r:58:LEU:HB3	49:1r:62:GLU:HG3	1.85	0.57
1:2A:299:A:N1	1:2A:322:A:O2'	2.34	0.57
6:2G:145:THR:OG1	6:2G:146:TYR:N	2.37	0.57
32:2a:1062:U:H2'	32:2a:1063:C:C6	2.39	0.57
5:1F:184:TYR:O	5:1F:188:ARG:HG3	2.05	0.57
6:1G:67:LYS:H	26:14:6:HIS:CE1	2.21	0.57
34:1c:84:ILE:HA	34:1c:87:LEU:HD12	1.86	0.57
1:2A:2291:U:OP1	1:2A:2380:C:O2'	2.20	0.57
30:28:23:VAL:HG11	30:28:47:LYS:HD3	1.86	0.57
44:2m:54:VAL:HG12	44:2m:57:ARG:HH12	1.70	0.57
32:1a:437:U:H5'	35:1d:155:LEU:HD21	1.87	0.57
32:1a:1135:U:H4'	32:1a:1136:U:C5	2.39	0.57
32:1a:1277:C:O2'	32:1a:1279:A:H1'	2.05	0.57
5:2F:164:ARG:O	5:2F:168:ARG:HG3	2.05	0.57
32:2a:1286:A:C8	32:2a:1287:A:H4'	2.39	0.57
1:1A:889:C:O2'	1:1A:890:A:O5'	2.18	0.56
1:1A:897:C:H2'	1:1A:898:C:C6	2.40	0.56
1:1A:1187:G:H5''	17:1V:81:TYR:CE1	2.40	0.56
30:18:33:ASN:HA	30:18:36:LYS:HD2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:410:G:OP1	35:1d:30:LYS:NZ	2.27	0.56
41:1j:33:GLN:O	41:1j:75:ILE:N	2.38	0.56
3:2D:72:LYS:NZ	3:2D:99:ASP:OD2	2.27	0.56
41:2j:29:ARG:HE	41:2j:30:SER:HA	1.70	0.56
1:1A:428:A:OP1	61:1A:4147:HOH:O	2.18	0.56
1:1A:2801(A):A:N3	1:1A:2895:U:H1'	2.20	0.56
28:16:6:ARG:NH1	28:16:26:ASN:HB2	2.21	0.56
40:1i:5:TYR:HE1	40:1i:16:ARG:HB3	1.69	0.56
1:2A:1189:A:OP2	61:2A:3762:HOH:O	2.17	0.56
1:2A:1239:G:H2'	1:2A:1240:U:O4'	2.05	0.56
1:2A:1262:A:OP2	18:2W:97:LYS:NZ	2.38	0.56
1:2A:2104:G:O6	1:2A:2185:C:N3	2.38	0.56
21:2Z:73:GLN:H	21:2Z:87:ASP:HB2	1.71	0.56
32:2a:547:A:OP1	61:2a:3220:HOH:O	2.18	0.56
32:2a:601:C:H2'	32:2a:602:A:C8	2.40	0.56
34:2c:54:ARG:NH2	34:2c:56:ASP:OD1	2.38	0.56
35:2d:141:ARG:N	35:2d:144:ASP:OD2	2.38	0.56
1:1A:987:G:O2'	1:1A:1000:A:N3	2.34	0.56
1:1A:2243:U:H2'	1:1A:2244:U:C6	2.40	0.56
1:1A:2805:G:H2'	1:1A:2807:G:H8	1.70	0.56
11:1P:64:LYS:NZ	61:1P:303:HOH:O	2.19	0.56
20:1Y:23:ARG:NH1	61:1Y:302:HOH:O	2.29	0.56
32:1a:491:G:H2'	32:1a:492:G:O4'	2.06	0.56
33:1b:15:VAL:HG23	33:1b:209:ARG:HD2	1.87	0.56
1:2A:1011:G:OP2	16:2U:66:ASN:ND2	2.36	0.56
1:2A:1147:C:H2'	1:2A:1148:A:C8	2.40	0.56
6:2G:55:LYS:HA	6:2G:58:GLN:HB3	1.87	0.56
7:2H:154:PRO:HB3	7:2H:163:TYR:CZ	2.40	0.56
12:2Q:42:ILE:HD12	12:2Q:97:VAL:HG21	1.87	0.56
1:1A:154(A):C:H42	1:1A:171:G:H1	1.53	0.56
1:1A:1595:G:O6	61:1A:4143:HOH:O	2.17	0.56
8:1I:133:HIS:ND1	8:1I:134:PRO:O	2.33	0.56
32:1a:457:C:H2'	32:1a:458:C:C6	2.39	0.56
34:1c:36:ASP:OD1	34:1c:59:ARG:NH2	2.37	0.56
37:1f:38:GLU:OE1	37:1f:64:GLN:NE2	2.37	0.56
6:2G:41:GLN:HG3	6:2G:60:LEU:HD12	1.87	0.56
1:1A:912:C:OP1	12:1Q:9:TYR:OH	2.21	0.56
19:1X:26:TYR:OH	19:1X:93:GLU:OE2	2.21	0.56
32:1a:1376:U:H2'	32:1a:1377:A:C8	2.40	0.56
40:1i:121:ARG:NH1	40:1i:122:ALA:O	2.38	0.56
44:1m:65:LYS:HG2	44:1m:69:GLU:HG2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2064:C:OP2	61:2A:3765:HOH:O	2.18	0.56
3:2D:17:THR:O	3:2D:211:ARG:NH2	2.36	0.56
7:2H:74:ASN:O	7:2H:78:GLY:N	2.35	0.56
21:2Z:157:LEU:HD11	21:2Z:163:LEU:HB2	1.88	0.56
32:2a:1210:C:H2'	32:2a:1211:U:H5''	1.87	0.56
36:2e:77:PRO:HD2	36:2e:142:LEU:HD22	1.87	0.56
40:2i:4:TYR:N	40:2i:19:LEU:O	2.39	0.56
1:1A:323:G:C8	5:1F:171:PRO:HG3	2.41	0.56
32:1a:346:G:N3	57:1a:1882:MPD:O4	2.39	0.56
1:2A:2186:G:H2'	1:2A:2187:G:H5''	1.87	0.56
1:2A:2316:C:H2'	1:2A:2317:C:H6	1.70	0.56
1:2A:2469:A:H4'	12:2Q:56:ARG:HG2	1.86	0.56
32:2a:117:G:OP2	61:2a:3213:HOH:O	2.17	0.56
35:2d:146:ILE:HD11	35:2d:185:PHE:HB2	1.88	0.56
1:1A:2114:A:H1'	1:1A:2168:G:H5'	1.86	0.56
1:1A:2336:A:H61	22:10:43:THR:CG2	2.19	0.56
1:1A:2722:G:OP2	61:1A:4148:HOH:O	2.18	0.56
16:1U:33:ARG:NH2	61:1U:304:HOH:O	2.38	0.56
32:1a:176:C:H2'	32:1a:177:C:C6	2.39	0.56
32:1a:262:A:H2'	32:1a:263:A:C8	2.41	0.56
32:1a:600:C:H2'	32:1a:601:C:H6	1.71	0.56
39:1h:51:VAL:HG12	39:1h:52:ASP:H	1.70	0.56
44:1m:23:TYR:HB3	44:1m:67:GLU:HA	1.88	0.56
1:2A:9:U:O4	1:2A:2629:A:H2	1.89	0.56
1:2A:2058:MA6:H2	56:2A:3672:ERY:H72	1.86	0.56
3:2D:127:VAL:HA	3:2D:193:VAL:HG23	1.88	0.56
1:1A:668:G:N7	61:1A:4308:HOH:O	2.33	0.56
1:1A:2372:G:N3	61:1A:4310:HOH:O	2.33	0.56
16:1U:101:ARG:NH2	61:1U:302:HOH:O	2.24	0.56
1:2A:2125:G:N2	1:2A:2172:U:OP2	2.38	0.56
11:2P:85:LEU:HD13	11:2P:120:ALA:HB2	1.86	0.56
12:2Q:38:GLU:OE2	12:2Q:128:LYS:N	2.37	0.56
16:2U:27:LEU:HA	16:2U:30:LYS:HB2	1.86	0.56
32:2a:1291:G:O2'	40:2i:38:GLN:O	2.21	0.56
1:1A:715:G:H21	46:1o:40:SER:HB2	1.71	0.56
1:2A:2749:A:OP1	7:2H:3:ARG:NH1	2.39	0.56
21:2Z:110:GLY:HA3	21:2Z:174:VAL:HG11	1.88	0.56
33:2b:78:GLN:HE21	33:2b:95:GLN:HA	1.71	0.56
34:2c:22:TRP:CD1	34:2c:59:ARG:HG3	2.41	0.56
34:2c:83:ARG:O	34:2c:87:LEU:N	2.30	0.56
41:2j:78:ASN:O	41:2j:80:LYS:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:489:G:N7	18:1W:49:LYS:NZ	2.54	0.56
32:1a:149:A:H2'	32:1a:150:C:C6	2.40	0.56
46:1o:25:THR:HG21	46:1o:70:LEU:HB2	1.86	0.56
1:2A:747:U:O2	1:2A:2014:A:H1'	2.06	0.56
19:2X:31:HIS:CD2	19:2X:33:LYS:H	2.23	0.56
21:2Z:40:ASP:HB3	21:2Z:43:GLU:HB2	1.87	0.56
32:2a:353:A:H5'	32:2a:353:A:H8	1.71	0.56
32:2a:1212:U:H4'	32:2a:1213:A:C8	2.41	0.56
32:2a:1286:A:H8	32:2a:1287:A:H4'	1.70	0.56
32:2a:1412:C:H2'	32:2a:1413:A:C8	2.41	0.56
32:1a:507:C:OP2	32:1a:508:C:O2'	2.21	0.55
33:1b:178:ARG:NE	39:1h:71:GLY:O	2.26	0.55
40:1i:29:ASN:ND2	40:1i:65:VAL:HG12	2.21	0.55
1:2A:2079:U:O3'	23:21:35:THR:OG1	2.24	0.55
3:2D:101:GLU:OE2	3:2D:103:ARG:NH1	2.38	0.55
32:2a:560:U:H4'	32:2a:561:U:O5'	2.06	0.55
38:2g:65:ALA:HB1	38:2g:127:ALA:HB3	1.88	0.55
39:2h:103:VAL:HG21	39:2h:110:ALA:HB2	1.88	0.55
50:2s:22:LEU:O	50:2s:26:GLY:N	2.39	0.55
1:1A:530:G:N1	1:1A:2023:G:OP1	2.30	0.55
1:1A:1056:G:O3'	1:1A:1057:A:H8	1.88	0.55
7:1H:3:ARG:NH1	7:1H:5:GLY:H	2.04	0.55
12:1Q:58:PHE:O	12:1Q:60:ARG:N	2.37	0.55
1:2A:1450:G:H2'	1:2A:1450(A):C:C6	2.41	0.55
39:2h:121:ASP:HB2	39:2h:125:ARG:NH2	2.21	0.55
42:2k:48:ILE:HD11	42:2k:64:ALA:HA	1.88	0.55
6:1G:27:ASN:HB3	6:1G:30:GLU:HG3	1.89	0.55
33:1b:87:ARG:NH2	33:1b:220:ASP:OD1	2.39	0.55
35:1d:111:ALA:HB1	35:1d:116:GLN:HB3	1.88	0.55
1:2A:1188:U:H4'	17:2V:79:VAL:HG22	1.89	0.55
1:2A:2185:C:N4	1:2A:2186:G:C6	2.74	0.55
6:2G:145:THR:HG22	6:2G:148:MET:HE3	1.88	0.55
32:2a:992:U:H4'	32:2a:993:G:O5'	2.05	0.55
50:2s:31:ILE:HD12	50:2s:49:ILE:HD11	1.89	0.55
1:1A:2659:G:O2'	7:1H:175:LYS:NZ	2.39	0.55
1:2A:586:A:N1	1:2A:809:G:O2'	2.36	0.55
1:2A:1667:G:O2'	1:2A:1991:U:O4	2.20	0.55
6:2G:54:GLU:O	6:2G:58:GLN:N	2.39	0.55
7:2H:95:ARG:HB2	7:2H:128:PRO:HB3	1.88	0.55
23:21:53:VAL:HG22	23:21:74:VAL:HG13	1.87	0.55
32:2a:102:G:H2'	32:2a:103:C:H6	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1239:A:H62	32:2a:1299:A:H62	1.54	0.55
1:1A:2887:U:H2'	1:1A:2888:C:C6	2.41	0.55
33:1b:88:ALA:HB2	33:1b:219:VAL:HG13	1.87	0.55
35:1d:176:LEU:HG	35:1d:178:VAL:HG22	1.88	0.55
51:1t:35:THR:HA	51:1t:38:LYS:HE3	1.88	0.55
1:2A:1514:U:H2'	1:2A:1515:G:H8	1.71	0.55
1:2A:1579:A:H2'	1:2A:1580:A:C8	2.41	0.55
1:2A:2687:U:H2'	1:2A:2688:U:O4'	2.07	0.55
19:2X:12:VAL:HG22	19:2X:29:TRP:CE2	2.42	0.55
32:2a:189(L):G:H2'	32:2a:190:U:H6	1.72	0.55
32:2a:222:U:H2'	32:2a:223:U:C6	2.41	0.55
33:2b:102:LEU:HD23	33:2b:182:ILE:HD12	1.89	0.55
39:2h:121:ASP:OD1	39:2h:121:ASP:N	2.32	0.55
1:1A:1064:C:H3'	1:1A:1065:U:H5''	1.89	0.55
1:1A:1379:A:H4'	1:1A:1380:G:OP2	2.07	0.55
1:1A:2790:A:H2'	1:1A:2790:A:N3	2.22	0.55
32:1a:266:G:H5''	32:1a:267:C:H5	1.71	0.55
32:1a:1025:U:O2	32:1a:1036:G:O6	2.24	0.55
1:2A:1776:G:OP1	61:2A:3766:HOH:O	2.18	0.55
4:2E:54:GLN:HB2	4:2E:76:ARG:HG3	1.87	0.55
5:2F:24:LEU:HD23	5:2F:115:ALA:HA	1.89	0.55
6:2G:19:LEU:HD13	6:2G:32:PRO:HD2	1.87	0.55
32:2a:512:U:H2'	32:2a:513:C:H6	1.71	0.55
1:1A:1143:A:OP1	9:1N:25:ARG:NH2	2.32	0.55
6:1G:133:LEU:HD11	6:1G:157:ILE:HD12	1.88	0.55
24:12:59:ARG:NH2	61:12:101:HOH:O	2.32	0.55
32:1a:473:G:H2'	32:1a:474:G:H8	1.72	0.55
33:1b:166:ASP:HB3	33:1b:169:LYS:HB3	1.88	0.55
34:1c:148:GLY:HA2	34:1c:171:GLY:HA3	1.87	0.55
1:2A:2206:G:H3'	1:2A:2207:G:C8	2.41	0.55
21:2Z:140:ASP:OD1	21:2Z:142:SER:OG	2.25	0.55
26:24:58:ARG:HH21	50:2s:68:GLY:H	1.55	0.55
28:26:6:ARG:NH1	28:26:26:ASN:HB2	2.22	0.55
32:2a:999:C:H2'	32:2a:1000:U:H6	1.72	0.55
39:2h:10:LEU:HD22	39:2h:83:ILE:HD11	1.89	0.55
32:1a:186:C:H2'	32:1a:187:C:C6	2.42	0.55
32:1a:393:A:OP1	61:1a:1914:HOH:O	2.18	0.55
34:1c:6:HIS:HD2	34:1c:8:ILE:H	1.54	0.55
6:2G:41:GLN:O	6:2G:43:LEU:N	2.40	0.55
17:2V:72:VAL:HG13	17:2V:85:LYS:HB3	1.89	0.55
32:2a:490:G:OP1	35:2d:132:ARG:NH2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:2m:34:LEU:HD13	44:2m:41:PRO:HB3	1.88	0.55
1:1A:456:C:H4'	61:1A:4932:HOH:O	2.07	0.55
1:1A:601:C:OP1	5:1F:108:LYS:NZ	2.37	0.55
1:1A:2429:G:OP1	61:1A:4105:HOH:O	2.18	0.55
6:1G:179:PRO:HG3	26:14:43:TYR:OH	2.06	0.55
1:2A:1920:OMC:HM22	1:2A:1921:G:H5'	1.88	0.55
5:2F:185:ASP:HA	5:2F:188:ARG:HD3	1.89	0.55
32:2a:674:G:H2'	32:2a:675:A:H8	1.72	0.55
32:2a:1051:C:H42	32:2a:1207:2MG:HN1	1.55	0.55
32:2a:1250:A:N3	32:2a:1370:G:O2'	2.37	0.55
1:1A:1047:G:H2'	1:1A:1110:G:N2	2.21	0.55
1:1A:2319:G:N2	14:1S:3:ARG:HA	2.22	0.55
33:1b:167:PRO:HG2	33:1b:188:ALA:HB2	1.88	0.55
1:2A:557:U:H2'	1:2A:558:G:H8	1.72	0.55
1:2A:2001:A:H2'	1:2A:2002:G:C8	2.42	0.55
1:2A:2746:U:OP1	7:2H:85:LYS:NZ	2.37	0.55
6:2G:48:GLU:HA	6:2G:51:ARG:HE	1.72	0.55
32:2a:1118:C:H1'	32:2a:1179:A:C4	2.42	0.55
34:2c:37:GLN:HA	34:2c:40:ARG:HG3	1.87	0.55
1:1A:11:G:H2'	1:1A:12:U:H5''	1.89	0.54
1:1A:1188:U:H4'	17:1V:79:VAL:HG22	1.88	0.54
5:1F:12:LEU:HD22	5:1F:124:LEU:HD21	1.88	0.54
7:1H:159:GLU:HG2	7:1H:169:VAL:HG11	1.89	0.54
32:1a:266:G:H5''	32:1a:267:C:C5	2.42	0.54
32:1a:545:C:OP1	35:1d:61:LYS:NZ	2.40	0.54
51:1t:18:GLN:O	51:1t:22:ARG:HG3	2.07	0.54
1:2A:1359:A:N3	1:2A:1359:A:H5'	2.22	0.54
2:2B:3:C:H2'	2:2B:4:C:C6	2.42	0.54
21:2Z:54:HIS:HB3	21:2Z:101:PRO:HD3	1.89	0.54
33:2b:180:LEU:HB2	33:2b:182:ILE:HG13	1.90	0.54
36:2e:33:VAL:HG13	36:2e:112:LEU:HD12	1.89	0.54
22:10:23:VAL:HG22	22:10:38:VAL:HG22	1.89	0.54
52:1u:5:ASP:O	52:1u:11:GLY:HA3	2.07	0.54
1:2A:652(B):A:N6	1:2A:655:A:HO2'	2.05	0.54
1:2A:1379:A:H4'	1:2A:1380:G:OP2	2.08	0.54
32:2a:1084:G:H5'	32:2a:1102:A:OP2	2.06	0.54
1:1A:1086:A:H3'	1:1A:1086:A:N3	2.23	0.54
1:1A:1300:U:H4'	1:1A:1301:A:C5'	2.37	0.54
17:1V:1:MET:HE1	17:1V:44:LYS:HG2	1.89	0.54
32:1a:560:U:O2'	32:1a:561:U:OP2	2.22	0.54
32:1a:596:C:OP2	61:1a:1915:HOH:O	2.18	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:965:A:OP2	53:1y:8:LYS:NZ	2.41	0.54
38:1g:91:VAL:HB	38:1g:96:GLN:HE21	1.72	0.54
32:2a:1079:G:O3'	36:2e:14:ARG:NH2	2.41	0.54
36:2e:52:PRO:HG2	36:2e:53:LEU:HD12	1.89	0.54
32:1a:1183:A:O2'	32:1a:1184:G:OP1	2.23	0.54
33:1b:95:GLN:HG3	33:1b:147:LYS:O	2.07	0.54
35:1d:128:VAL:HG12	35:1d:129:ASN:HD22	1.72	0.54
47:1p:29:ASP:OD1	47:1p:29:ASP:N	2.41	0.54
1:2A:8:A:H2'	1:2A:9:U:C6	2.43	0.54
1:2A:1429:G:H2'	1:2A:1430:C:C6	2.43	0.54
32:2a:663:A:O3'	49:2r:64:ARG:NH2	2.40	0.54
32:2a:1258:G:H2'	32:2a:1259:C:C6	2.42	0.54
1:1A:1084:A:N3	1:1A:1105:U:O2'	2.34	0.54
1:1A:1762:A:H2'	61:1A:6972:HOH:O	2.07	0.54
1:1A:2646:C:H2'	1:1A:2647:U:O4'	2.08	0.54
1:1A:2785:C:O2'	61:1A:4150:HOH:O	2.18	0.54
32:1a:803:G:OP1	61:1a:1916:HOH:O	2.19	0.54
1:2A:1714:G:H2'	1:2A:1717:G:H8	1.73	0.54
61:2A:4766:HOH:O	5:2F:74:ARG:HG3	2.07	0.54
5:2F:150:GLY:HA2	5:2F:172:TRP:CD2	2.43	0.54
19:2X:8:ILE:O	24:22:36:ARG:NH2	2.41	0.54
32:2a:574:A:OP2	61:2a:3221:HOH:O	2.18	0.54
32:2a:977:A:N6	32:2a:1224:G:OP1	2.35	0.54
34:2c:11:ARG:NH2	34:2c:177:THR:O	2.40	0.54
38:2g:137:LYS:HE2	38:2g:141:VAL:HG23	1.89	0.54
1:1A:2683:C:O2	10:1O:70:LYS:NZ	2.27	0.54
25:13:26:LEU:O	25:13:35:ARG:NE	2.37	0.54
30:18:23:VAL:HG11	30:18:47:LYS:HD3	1.89	0.54
35:1d:15:GLU:OE2	35:1d:66:ARG:NH1	2.41	0.54
1:2A:1066:U:O2'	1:2A:1068:G:OP2	2.22	0.54
9:2N:67:LEU:HD12	9:2N:87:LEU:HD13	1.89	0.54
32:2a:1203:C:H2'	32:2a:1204:A:C8	2.41	0.54
1:1A:1486:A:H2'	1:1A:1487:G:C8	2.42	0.54
1:1A:1939:5MU:OP1	1:1A:2604:U:O2'	2.22	0.54
1:1A:2206:G:OP2	1:1A:2206:G:H4'	2.06	0.54
5:1F:152:GLU:OE1	5:1F:191:ARG:HD2	2.07	0.54
6:1G:98:ARG:CZ	26:14:1:MET:HE3	2.38	0.54
32:1a:266:G:H2'	32:1a:266:G:N3	2.22	0.54
32:1a:458:C:H2'	32:1a:460:G:O4'	2.08	0.54
32:1a:1034:G:H2'	32:1a:1035:A:O4'	2.08	0.54
44:1m:14:ARG:HG2	44:1m:44:ARG:NE	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1090:U:H2'	1:2A:1091:G:H8	1.73	0.54
8:2I:5:LEU:HD11	8:2I:19:VAL:HG22	1.88	0.54
13:2R:96:ARG:HG2	13:2R:115:GLU:HG2	1.89	0.54
22:20:68:GLU:CD	22:20:82:ARG:HH11	2.16	0.54
32:2a:1151:A:O2'	32:2a:1152:A:H8	1.89	0.54
1:1A:483:A:O2'	20:1Y:49:VAL:O	2.18	0.54
1:1A:607:U:OP1	5:1F:102:PRO:HA	2.07	0.54
25:13:29:ARG:HG3	25:13:30:ARG:HG3	1.90	0.54
32:1a:7:G:H5'	32:1a:298:A:O4'	2.08	0.54
32:1a:347:G:H8	57:1a:1882:MPD:H53	1.71	0.54
1:2A:252:G:P	11:2P:50:ARG:HH12	2.31	0.54
1:2A:2086:U:H2'	1:2A:2087:G:C8	2.43	0.54
1:2A:2776:A:H4'	1:2A:2777:G:H5''	1.90	0.54
1:2A:2839:G:H5'	13:2R:46:GLY:HA2	1.89	0.54
6:2G:68:PRO:HB2	6:2G:90:LEU:HB3	1.90	0.54
6:2G:108:ASN:HA	26:24:37:SER:HB2	1.90	0.54
26:24:59:PHE:CA	26:24:61:ARG:H	2.06	0.54
34:2c:40:ARG:O	34:2c:44:GLU:HB2	2.06	0.54
44:2m:87:TYR:HA	44:2m:90:LEU:HD12	1.90	0.54
1:1A:1053:C:H2'	1:1A:1054:A:C8	2.43	0.54
1:1A:2115:G:H2'	1:1A:2117:A:N6	2.22	0.54
32:1a:1286:A:H2'	32:1a:1287:A:H4'	1.89	0.54
50:1s:55:LYS:HG3	50:1s:56:GLN:HG2	1.90	0.54
1:2A:1410:G:H2'	1:2A:1411:C:C6	2.43	0.54
2:2B:114:C:H4'	14:2S:46:VAL:HG13	1.90	0.54
6:2G:80:PHE:O	6:2G:82:LEU:N	2.41	0.54
32:2a:585:G:N3	32:2a:879:C:H4'	2.23	0.54
32:2a:1004:A:OP1	32:2a:1024:G:N1	2.41	0.54
32:2a:1513:A:H2'	32:2a:1514:C:C6	2.43	0.54
34:2c:8:ILE:HG23	34:2c:16:ARG:HD3	1.88	0.54
45:2n:41:ARG:HG3	45:2n:42:ILE:HG13	1.89	0.54
1:1A:271(P):C:H2'	1:1A:271(Q):G:O4'	2.08	0.54
1:1A:2428:G:OP1	61:1A:4105:HOH:O	2.18	0.54
6:1G:50:ALA:C	6:1G:52:ILE:H	2.15	0.54
11:1P:50:ARG:HD3	30:18:7:HIS:CD2	2.42	0.54
16:1U:33:ARG:NH1	61:1U:305:HOH:O	2.41	0.54
26:14:57:GLU:HB2	26:14:58:ARG:HA	1.90	0.54
32:1a:1469:G:H2'	32:1a:1470:G:C8	2.43	0.54
53:1y:24:LEU:HD11	53:1y:39:ILE:HD11	1.90	0.54
1:2A:918:A:H5''	2:2B:98:G:O2'	2.08	0.54
1:2A:1450:G:H2'	1:2A:1450(A):C:H6	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:58:A:OP2	61:2B:302:HOH:O	2.19	0.54
7:2H:46:GLU:HB2	7:2H:49:VAL:HG12	1.89	0.54
32:2a:512:U:H2'	32:2a:513:C:C6	2.43	0.54
35:2d:201:GLN:NE2	36:2e:116:THR:O	2.36	0.54
36:2e:50:GLU:HB2	36:2e:53:LEU:HD13	1.90	0.54
1:1A:278:A:H2'	1:1A:279:C:C6	2.42	0.53
1:1A:1300:U:H4'	1:1A:1301:A:H5'	1.89	0.53
5:1F:161:GLU:HG2	5:1F:164:ARG:NH2	2.23	0.53
40:1i:4:TYR:O	40:1i:19:LEU:N	2.41	0.53
1:2A:774:A:H2'	1:2A:774:A:N3	2.23	0.53
1:2A:881:G:H2'	1:2A:882:G:C8	2.43	0.53
1:2A:2310:A:H2'	1:2A:2311:A:H5''	1.90	0.53
26:24:50:VAL:HG11	44:2m:64:TRP:C	2.33	0.53
32:2a:1493:A:H4'	53:2y:72:THR:HG23	1.89	0.53
35:2d:150:GLU:HA	35:2d:153:ARG:HG3	1.88	0.53
1:1A:2314:C:H2'	1:1A:2315:G:C8	2.42	0.53
32:1a:509:A:N3	32:1a:543:C:O2'	2.35	0.53
32:1a:737:A:H2'	32:1a:738:C:C6	2.43	0.53
48:1q:19:VAL:HG23	48:1q:44:ALA:HB3	1.90	0.53
1:2A:1803:A:HO2'	3:2D:259:THR:HG21	1.71	0.53
2:2B:14:U:OP2	2:2B:70:C:O2'	2.23	0.53
17:2V:43:GLU:OE1	17:2V:43:GLU:N	2.41	0.53
32:2a:492:G:OP2	61:2a:3222:HOH:O	2.18	0.53
32:2a:881:G:P	43:2l:12:ARG:HH22	2.31	0.53
32:2a:1004:A:N7	32:2a:1037:C:H2'	2.22	0.53
32:2a:1164:G:H1	32:2a:1172:C:H42	1.56	0.53
34:2c:181:ASN:N	34:2c:205:GLY:O	2.36	0.53
1:1A:1509(A):A:H2'	1:1A:1509(B):A:C8	2.43	0.53
21:1Z:52:SER:C	21:1Z:54:HIS:H	2.17	0.53
46:1o:82:ILE:O	46:1o:86:GLY:N	2.35	0.53
1:2A:1104:C:H2'	1:2A:1105:U:C6	2.43	0.53
1:2A:2864:G:OP1	15:2T:119:LYS:HE3	2.09	0.53
10:2O:26:LYS:NZ	10:2O:37:ASP:OD2	2.37	0.53
30:28:52:LYS:O	30:28:56:GLU:HG3	2.09	0.53
32:2a:7:G:O2'	36:2e:120:THR:O	2.26	0.53
32:2a:110:C:H2'	32:2a:111:G:O4'	2.08	0.53
32:2a:474:G:H2'	32:2a:475:G:H8	1.73	0.53
32:2a:1263:C:H2'	32:2a:1264:C:C6	2.44	0.53
40:2i:21:PRO:HA	40:2i:59:PHE:HA	1.91	0.53
40:2i:53:VAL:HG11	40:2i:92:TYR:CE1	2.44	0.53
1:1A:1688:U:O2	1:1A:1700:A:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2286:A:H4'	1:1A:2287:A:O4'	2.08	0.53
32:1a:375:U:OP1	47:1p:69:THR:OG1	2.19	0.53
32:1a:1410:G:H2'	32:1a:1411:C:H6	1.73	0.53
1:2A:252:G:OP1	11:2P:50:ARG:NH1	2.40	0.53
1:2A:1881:C:H2'	1:2A:1882:C:H6	1.72	0.53
1:2A:2125:G:H22	1:2A:2172:U:H3'	1.74	0.53
1:2A:2895:U:H2'	1:2A:2896:C:O4'	2.07	0.53
10:2O:2:ILE:HD12	10:2O:6:THR:HG21	1.90	0.53
32:2a:1403:C:H2'	32:2a:1404:5MC:HM53	1.90	0.53
41:2j:46:ARG:HA	41:2j:64:GLU:HA	1.88	0.53
1:1A:251:A:C5	1:1A:252:G:H1'	2.44	0.53
1:1A:588:U:H2'	1:1A:589:C:H6	1.74	0.53
32:1a:481:G:O2'	32:1a:483:C:N4	2.41	0.53
32:1a:976:G:H5'	32:1a:1358:U:O2'	2.08	0.53
32:1a:1060:C:H5''	41:1j:51:ARG:HB3	1.90	0.53
32:1a:1062:U:H2'	32:1a:1063:C:C6	2.43	0.53
1:2A:65:C:H2'	1:2A:66:C:H6	1.74	0.53
1:2A:1084:A:H3'	1:2A:1085:A:H4'	1.89	0.53
13:2R:87:TYR:OH	13:2R:117:VAL:O	2.11	0.53
32:2a:920:U:H2'	32:2a:921:U:C6	2.43	0.53
32:2a:1346:A:OP1	40:2i:120:ARG:NH1	2.40	0.53
35:2d:78:LEU:HD22	35:2d:96:LEU:HB3	1.90	0.53
1:1A:1570:A:H2'	1:1A:1571:A:C8	2.43	0.53
32:1a:971:G:N2	32:1a:1363(A):A:OP2	2.33	0.53
33:1b:74:LYS:NZ	33:1b:205:ASP:O	2.33	0.53
39:1h:39:LEU:HB3	39:1h:45:ILE:HG12	1.90	0.53
41:1j:5:ARG:HE	41:1j:73:ASP:CG	2.15	0.53
1:2A:271(E):U:H2'	1:2A:271(F):C:H6	1.72	0.53
1:2A:300:A:OP1	20:2Y:86:ARG:NH2	2.40	0.53
1:2A:1101:U:H2'	1:2A:1102:C:C6	2.43	0.53
1:2A:1449:A:N3	1:2A:1529:G:H1'	2.24	0.53
1:2A:1508:A:H4'	1:2A:1509(A):A:C6	2.42	0.53
1:2A:2133:G:N2	1:2A:2157:G:H2'	2.24	0.53
8:2I:77:LEU:HB3	8:2I:142:VAL:HG12	1.90	0.53
32:2a:545:C:H5'	35:2d:72:GLU:HB2	1.91	0.53
32:2a:1074:G:OP1	36:2e:64:ARG:NH2	2.38	0.53
39:2h:37:ARG:NH1	39:2h:41:ARG:HH21	2.07	0.53
40:2i:111:ARG:NH1	40:2i:112:LYS:O	2.41	0.53
41:2j:8:LEU:HB2	41:2j:70:ARG:HB2	1.90	0.53
51:2t:18:GLN:O	51:2t:22:ARG:HG3	2.08	0.53
1:1A:1025:G:C4	1:1A:1135:C:H1'	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2564:A:C2	1:1A:2647:U:H4'	2.43	0.53
5:1F:184:TYR:CE2	5:1F:188:ARG:HD2	2.43	0.53
5:1F:195:ASP:HB3	5:1F:197:ASP:H	1.73	0.53
7:1H:3:ARG:HH22	7:1H:66:GLY:N	2.07	0.53
21:1Z:3:TYR:CD2	21:1Z:51:ALA:HB2	2.44	0.53
32:1a:67:C:H2'	32:1a:68:G:C8	2.43	0.53
32:1a:950:U:H2'	32:1a:951:G:C8	2.44	0.53
32:1a:1356:G:H2'	32:1a:1357:A:C8	2.42	0.53
40:1i:26:VAL:HG13	40:1i:61:ALA:HB3	1.91	0.53
1:2A:271(R):G:OP1	23:21:76:ARG:NH1	2.42	0.53
1:2A:1495:A:H2'	1:2A:1496:A:C8	2.44	0.53
1:2A:2058:MA6:H91	56:2A:3672:ERY:H282	1.91	0.53
1:2A:2153:G:H2'	1:2A:2154:G:C8	2.44	0.53
2:2B:42:C:O2'	6:2G:66:GLN:HG2	2.08	0.53
2:2B:55:U:O3'	6:2G:27:ASN:ND2	2.42	0.53
6:2G:72:ARG:NE	6:2G:87:PRO:HG3	2.24	0.53
38:2g:49:ILE:HG22	38:2g:53:LYS:HG3	1.90	0.53
40:2i:12:GLU:O	40:2i:68:GLY:N	2.42	0.53
1:1A:438:G:N7	61:1A:4316:HOH:O	2.34	0.53
1:1A:1252:G:N3	16:1U:33:ARG:HG2	2.24	0.53
1:1A:1817:G:OP1	3:1D:88:ARG:NH2	2.38	0.53
1:1A:2319:G:H22	14:1S:3:ARG:CZ	2.22	0.53
17:1V:80:GLN:HB2	61:1V:318:HOH:O	2.09	0.53
33:1b:115:LEU:HD13	33:1b:145:LEU:HB3	1.91	0.53
34:1c:108:ASN:ND2	34:1c:144:SER:OG	2.42	0.53
36:1e:81:GLU:HG2	36:1e:90:VAL:HG13	1.91	0.53
50:1s:52:TYR:HB2	50:1s:57:HIS:CE1	2.43	0.53
1:2A:1115:G:H2'	1:2A:1116:C:C6	2.44	0.53
5:2F:11:VAL:HG22	5:2F:125:LEU:HB2	1.89	0.53
32:2a:1226:C:H3'	44:2m:96:LEU:HD21	1.91	0.53
1:1A:2118:U:O2'	1:1A:2119:A:H5'	2.08	0.53
1:1A:2417:C:OP1	11:1P:65:ARG:NH2	2.42	0.53
32:1a:22:G:H4'	32:1a:885:G:C8	2.44	0.53
39:1h:17:THR:O	39:1h:78:GLN:NE2	2.33	0.53
50:1s:46:GLY:HA2	50:1s:61:TYR:HE1	1.73	0.53
1:2A:614(C):A:C4	5:2F:180:GLY:HA2	2.43	0.53
1:2A:733:G:OP1	61:2A:3767:HOH:O	2.18	0.53
1:2A:2109:U:H2'	1:2A:2110:G:C8	2.43	0.53
1:2A:2286:A:OP1	28:26:29:ASN:ND2	2.41	0.53
5:2F:165:ARG:HA	5:2F:168:ARG:HD2	1.91	0.53
6:2G:43:LEU:HD23	6:2G:53:LEU:HD22	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:24:18:CYS:SG	26:24:39:CYS:HB3	2.49	0.53
32:2a:1402:4OC:H6	32:2a:1402:4OC:O5'	2.09	0.53
35:2d:166:LYS:HB3	35:2d:178:VAL:HG11	1.90	0.53
42:2k:21:ILE:HB	42:2k:84:VAL:HG22	1.91	0.53
50:2s:70:LYS:HB2	50:2s:73:GLU:HG3	1.89	0.53
1:1A:645:C:H5'	1:1A:646:A:OP2	2.09	0.53
1:1A:1740:G:H2'	1:1A:1741:A:C8	2.44	0.53
1:1A:2791:C:H2'	1:1A:2792:G:H8	1.74	0.53
6:1G:53:LEU:O	6:1G:56:ALA:N	2.41	0.53
48:1q:12:SER:HB3	48:1q:20:THR:HB	1.91	0.53
1:2A:271(V):G:O6	61:2A:3769:HOH:O	2.18	0.53
1:2A:2131:G:H5''	1:2A:2132:U:H5'	1.91	0.53
1:2A:2682:U:O2'	15:2T:58:ASN:ND2	2.42	0.53
32:2a:1032:G:C2'	32:2a:1033:G:H5'	2.39	0.53
33:2b:71:VAL:HG23	33:2b:164:VAL:HA	1.90	0.53
40:2i:125:TYR:HE1	40:2i:127:LYS:HB3	1.73	0.53
1:1A:521:G:O6	61:1A:4152:HOH:O	2.19	0.52
1:1A:1178:C:H2'	1:1A:1179:C:H6	1.72	0.52
6:1G:43:LEU:C	6:1G:45:GLU:H	2.16	0.52
32:1a:407:G:OP1	35:1d:3:ARG:NH1	2.39	0.52
32:1a:1140:C:H2'	32:1a:1141:C:H6	1.73	0.52
1:2A:300:A:H1'	1:2A:319:C:H1'	1.90	0.52
1:2A:800:A:H8	1:2A:800:A:OP1	1.92	0.52
1:2A:1639:U:C2'	1:2A:1640:C:H5''	2.39	0.52
7:2H:98:LEU:HD22	7:2H:125:VAL:HG23	1.91	0.52
11:2P:97:PRO:HD3	11:2P:126:VAL:O	2.10	0.52
15:2T:15:VAL:HG13	15:2T:79:HIS:CE1	2.45	0.52
32:2a:1006:C:H2'	32:2a:1007:C:C6	2.45	0.52
32:2a:1164:G:H1	32:2a:1172:C:N4	2.06	0.52
8:1I:60:GLU:HG3	8:1I:61:ARG:HH12	1.73	0.52
32:1a:149:A:H2'	32:1a:150:C:H6	1.72	0.52
32:1a:292:G:O2'	32:1a:608:A:N6	2.42	0.52
32:1a:1003:G:H2'	32:1a:1004:A:C4'	2.30	0.52
35:1d:154:ASN:HA	35:1d:159:ARG:HE	1.75	0.52
1:2A:796:C:H2'	1:2A:797:C:C6	2.44	0.52
22:20:27:GLU:HB2	22:20:69:PHE:HD1	1.74	0.52
42:2k:27:ASN:OD1	42:2k:28:THR:N	2.40	0.52
1:1A:1843:C:H5'	3:1D:253:GLN:HE22	1.75	0.52
1:1A:2786:U:O4	61:1A:4136:HOH:O	2.16	0.52
23:11:77:ALA:HA	23:11:80:LEU:HD13	1.90	0.52
29:17:30:VAL:O	29:17:34:ARG:HG3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:623:G:H2'	1:2A:624:C:C6	2.45	0.52
1:2A:656:G:H2'	1:2A:657:U:O4'	2.08	0.52
1:2A:856:C:H2'	1:2A:857:C:C6	2.44	0.52
1:2A:1952:A:OP1	10:2O:42:SER:OG	2.28	0.52
1:2A:2144:U:H5''	1:2A:2145:C:C5	2.45	0.52
1:2A:2445:G:OP1	5:2F:74:ARG:NH2	2.41	0.52
2:2B:102:A:OP2	61:2B:301:HOH:O	2.19	0.52
13:2R:33:ARG:NH1	13:2R:115:GLU:OE1	2.42	0.52
1:1A:1929:G:H4'	1:1A:1930:G:OP1	2.07	0.52
7:1H:90:LYS:NZ	7:1H:159:GLU:OE1	2.33	0.52
24:12:65:ASN:OD1	24:12:69:ARG:NH1	2.40	0.52
1:2A:1153:C:OP1	16:2U:76:TYR:OH	2.26	0.52
1:2A:2840:C:O3'	13:2R:53:HIS:NE2	2.42	0.52
4:2E:54:GLN:OE1	4:2E:55:ASN:N	2.42	0.52
6:2G:7:LEU:HD23	6:2G:100:TRP:HE3	1.74	0.52
25:23:52:HIS:CD2	25:23:53:LEU:HG	2.45	0.52
32:2a:1343:G:H2'	32:2a:1344:C:C6	2.45	0.52
5:1F:24:LEU:H	5:1F:24:LEU:HD22	1.75	0.52
6:1G:41:GLN:HG3	6:1G:60:LEU:HD11	1.92	0.52
18:1W:25:ARG:NH2	18:1W:74:ALA:O	2.40	0.52
1:2A:1264:G:O6	61:2A:3768:HOH:O	2.18	0.52
1:2A:1657:C:H2'	1:2A:1658:C:C6	2.44	0.52
1:2A:2131:G:OP1	1:2A:2132:U:H5'	2.08	0.52
1:2A:2536:G:O6	61:2A:3752:HOH:O	2.17	0.52
1:2A:2693:A:H2'	1:2A:2694:G:C8	2.44	0.52
7:2H:55:PRO:HG2	7:2H:61:HIS:ND1	2.25	0.52
8:2I:68:LEU:HB3	8:2I:138:ILE:HD11	1.91	0.52
14:2S:14:VAL:O	14:2S:18:ILE:HG12	2.09	0.52
20:2Y:83:THR:HG21	20:2Y:99:CYS:HB2	1.91	0.52
49:2r:58:LEU:HB3	49:2r:62:GLU:HG3	1.92	0.52
51:2t:42:GLN:O	51:2t:45:GLN:HB3	2.09	0.52
51:2t:56:MET:HG3	51:2t:84:LEU:HD22	1.91	0.52
1:1A:414:C:H2'	1:1A:415:A:C8	2.44	0.52
1:1A:603:A:O4'	1:1A:655:A:N6	2.43	0.52
1:1A:2602:A:H4'	1:1A:2603:G:OP1	2.09	0.52
6:1G:77:ILE:HB	6:1G:82:LEU:HB2	1.92	0.52
32:1a:731:G:H5'	32:1a:766:A:H4'	1.91	0.52
32:1a:1391:U:H2'	32:1a:1392:G:C8	2.45	0.52
1:2A:96:G:H4'	24:22:48:HIS:CD2	2.45	0.52
1:2A:1064:C:H1'	1:2A:1076:C:C5	2.45	0.52
1:2A:1889:A:N1	1:2A:2234:G:H1'	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2298:A:H2'	1:2A:2299:G:O4'	2.10	0.52
32:2a:176:C:H2'	32:2a:177:C:H6	1.73	0.52
32:2a:1346:A:N6	32:2a:1375:A:OP2	2.41	0.52
33:2b:93:VAL:HG21	33:2b:97:TRP:CD1	2.45	0.52
47:2p:26:ARG:NH1	47:2p:31:LYS:HB3	2.25	0.52
13:1R:24:GLN:HE21	13:1R:44:LEU:HG	1.74	0.52
15:1T:39:ARG:NH2	32:1a:345:C:H5''	2.25	0.52
20:1Y:20:TYR:HB3	20:1Y:23:ARG:HD2	1.92	0.52
32:1a:56:U:H2'	32:1a:57:G:C8	2.44	0.52
32:1a:1298:C:OP2	38:1g:114:ARG:NH2	2.38	0.52
32:1a:1410:G:H2'	32:1a:1411:C:C6	2.45	0.52
47:1p:28:ARG:NE	47:1p:29:ASP:OD1	2.23	0.52
50:1s:3:ARG:NH1	50:1s:10:PHE:HB2	2.24	0.52
1:2A:443:A:H1'	1:2A:1201:C:O4'	2.10	0.52
1:2A:2142:C:H2'	1:2A:2143:C:C6	2.44	0.52
6:2G:135:LEU:HD23	6:2G:140:ILE:HD13	1.91	0.52
14:2S:15:ARG:O	14:2S:19:LYS:HG2	2.09	0.52
14:2S:95:HIS:HA	14:2S:99:LYS:HE3	1.92	0.52
15:2T:1:MET:HE2	15:2T:3:ARG:HG3	1.92	0.52
26:24:18:CYS:HB2	26:24:20:ASN:H	1.73	0.52
32:2a:384:G:H2'	32:2a:385:C:H6	1.74	0.52
35:2d:17:VAL:HG12	35:2d:19:LEU:HD12	1.92	0.52
42:2k:20:TYR:CE1	42:2k:83:ILE:HD12	2.45	0.52
43:2l:103:GLY:N	43:2l:107:ALA:O	2.33	0.52
47:2p:3:LYS:NZ	47:2p:65:GLN:O	2.35	0.52
3:1D:69:ARG:HE	3:1D:130:ALA:HB2	1.75	0.52
3:1D:108:PRO:HB3	3:1D:143:HIS:CE1	2.44	0.52
9:1N:100:GLU:OE2	61:1N:301:HOH:O	2.18	0.52
32:1a:67:C:O2'	32:1a:171:A:H1'	2.09	0.52
34:1c:6:HIS:CD2	34:1c:8:ILE:H	2.28	0.52
1:2A:720:C:H2'	1:2A:721:C:H6	1.75	0.52
1:2A:1130:U:O2	4:2E:149:ARG:NH2	2.42	0.52
8:2I:106:GLY:O	61:2I:201:HOH:O	2.19	0.52
19:2X:11:PRO:HB3	19:2X:92:LEU:HD11	1.91	0.52
51:2t:53:LEU:O	51:2t:57:ARG:HG3	2.10	0.52
1:1A:330:A:H2	1:1A:1210:A:O2'	1.80	0.52
1:1A:2038:G:O6	61:1A:4155:HOH:O	2.19	0.52
1:1A:2347:C:H2'	1:1A:2348:U:C6	2.45	0.52
1:1A:2811:G:N2	1:1A:2891:G:H1'	2.23	0.52
6:1G:114:ILE:HG12	6:1G:140:ILE:HD13	1.91	0.52
12:1Q:55:VAL:HG12	12:1Q:64:ILE:HD12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:636:U:H2'	32:1a:637:G:H8	1.74	0.52
34:1c:11:ARG:HB3	34:1c:15:THR:HB	1.91	0.52
35:1d:178:VAL:C	35:1d:180:GLY:H	2.18	0.52
1:2A:18:C:O2'	1:2A:554:U:OP1	2.26	0.52
1:2A:2152:G:H2'	1:2A:2153:G:C8	2.45	0.52
5:2F:184:TYR:CE2	5:2F:188:ARG:HD2	2.45	0.52
8:2I:48:GLU:OE2	8:2I:52:ARG:NH1	2.43	0.52
32:2a:434:U:H2'	32:2a:435:C:C6	2.45	0.52
32:2a:1030(A):G:H1'	32:2a:1030(C):G:N7	2.24	0.52
32:2a:1260:C:O5'	32:2a:1284:C:H4'	2.10	0.52
32:2a:1346:A:N1	32:2a:1374:A:H5''	2.25	0.52
50:2s:39:THR:HG23	50:2s:69:HIS:O	2.10	0.52
1:1A:2506:U:O2	55:1A:4026:HGR:H23	2.09	0.52
3:1D:206:LEU:HD22	3:1D:211:ARG:HG2	1.91	0.52
3:1D:221:VAL:HG22	3:1D:226:MET:HE3	1.92	0.52
11:1P:89:ALA:HA	11:1P:121:LYS:HD3	1.92	0.52
18:1W:4:LYS:NZ	61:1W:302:HOH:O	2.34	0.52
32:1a:1128:C:H5''	40:1i:66:ARG:HH22	1.74	0.52
35:1d:177:ASP:HB3	35:1d:182:LYS:HG3	1.92	0.52
1:2A:336:C:O2'	20:2Y:35:TYR:OH	2.26	0.52
1:2A:657:U:H2'	1:2A:658:C:C6	2.44	0.52
32:2a:1442:G:O2'	32:2a:1442(A):G:O5'	2.23	0.52
33:2b:32:ILE:HD11	33:2b:190:THR:HB	1.90	0.52
1:1A:1065:U:H4'	1:1A:1065:U:OP1	2.09	0.51
1:1A:1596:A:N3	61:1A:4332:HOH:O	2.34	0.51
20:1Y:6:HIS:H	20:1Y:6:HIS:CD2	2.28	0.51
32:1a:79:G:N1	32:1a:90:U:N3	2.58	0.51
32:1a:607:A:H2'	32:1a:608:A:H8	1.72	0.51
33:1b:12:GLU:O	33:1b:15:VAL:HG12	2.10	0.51
41:1j:35:SER:N	41:1j:73:ASP:O	2.40	0.51
1:2A:272:G:N7	1:2A:421:U:H2'	2.25	0.51
6:2G:72:ARG:HG2	6:2G:87:PRO:HA	1.91	0.51
9:2N:96:GLU:OE1	9:2N:96:GLU:N	2.39	0.51
32:2a:38:G:H22	32:2a:397:A:H5''	1.74	0.51
32:2a:890:G:O2'	32:2a:906:G:O6	2.15	0.51
32:2a:1316:G:N2	32:2a:1318:A:H3'	2.25	0.51
32:2a:1353:G:OP1	52:2u:10:ARG:NH1	2.42	0.51
32:2a:1493:A:H2'	32:2a:1494:G:H5'	1.92	0.51
48:2q:45:HIS:HB2	48:2q:65:ILE:HD13	1.90	0.51
1:1A:320:A:OP1	5:1F:135:LYS:NZ	2.37	0.51
1:1A:793:A:OP2	1:1A:2071:A:O2'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:796:C:H2'	1:1A:797:C:C6	2.45	0.51
1:1A:2155:G:H3'	1:1A:2156:G:H8	1.75	0.51
1:1A:2285:C:OP2	28:16:6:ARG:NH1	2.43	0.51
1:1A:2563:U:H4'	10:1O:28:SER:HA	1.92	0.51
5:1F:9:ILE:HG21	5:1F:125:LEU:HD22	1.92	0.51
32:1a:1036:G:H5''	32:1a:1037:C:C5	2.45	0.51
36:1e:74:GLY:HA3	36:1e:116:THR:HG22	1.91	0.51
1:2A:876:C:H2'	1:2A:877:U:O4'	2.10	0.51
1:2A:2168:G:O2'	1:2A:2170:A:N7	2.28	0.51
1:2A:2704:C:H2'	1:2A:2705:A:O4'	2.10	0.51
1:2A:2836:U:H2'	1:2A:2837:G:C8	2.45	0.51
2:2B:83:G:H1	2:2B:94:C:H42	1.57	0.51
32:2a:737:A:H2'	32:2a:738:C:C6	2.45	0.51
32:2a:926:G:O6	53:2y:87:LYS:NZ	2.42	0.51
32:2a:1004:A:H5''	32:2a:1025:U:C5	2.46	0.51
42:2k:33:THR:HA	42:2k:39:PRO:HA	1.93	0.51
1:1A:1022:G:N7	9:1N:66:LYS:HE2	2.25	0.51
1:1A:1055:G:N1	1:1A:1104:C:O2	2.42	0.51
1:1A:2611:U:C4	27:15:3:LYS:HG2	2.45	0.51
15:1T:33:LYS:HG2	15:1T:82:LEU:HD23	1.92	0.51
32:1a:540:G:H2'	32:1a:541:G:O4'	2.11	0.51
32:1a:1143:G:H2'	32:1a:1144:G:H8	1.75	0.51
32:1a:1402:4OC:HM22	32:1a:1403:C:H5'	1.92	0.51
38:1g:80:VAL:HB	38:1g:85:TYR:CE2	2.45	0.51
43:1l:77:LEU:HD21	43:1l:107:ALA:HA	1.92	0.51
47:1p:27:LYS:HG3	47:1p:30:GLY:HA3	1.92	0.51
1:2A:811:U:H2'	11:2P:21:ARG:HA	1.91	0.51
1:2A:1794:U:H2'	1:2A:1795:C:C6	2.45	0.51
1:2A:2103:C:H42	1:2A:2185:C:N4	2.06	0.51
4:2E:12:THR:HG22	4:2E:13:ARG:H	1.75	0.51
21:2Z:44:PHE:CZ	21:2Z:86:VAL:HG11	2.46	0.51
32:2a:1028:C:C2'	32:2a:1033:G:H22	2.23	0.51
32:2a:1447:A:H5''	32:2a:1452:C:OP2	2.11	0.51
32:2a:1491:G:O2'	32:2a:1492:A:OP1	2.26	0.51
32:2a:1525:G:OP1	42:2k:120:ARG:NH2	2.43	0.51
42:2k:22:HIS:HB3	42:2k:29:ILE:HB	1.93	0.51
1:1A:1179:C:H2'	1:1A:1180:C:H6	1.76	0.51
32:1a:626:U:H2'	32:1a:627:G:C8	2.45	0.51
33:1b:207:ALA:O	33:1b:211:ILE:HG13	2.10	0.51
39:1h:10:LEU:HD22	39:1h:83:ILE:HD11	1.93	0.51
44:1m:3:ARG:HG3	44:1m:4:ILE:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:1y:23:ARG:NH1	53:1y:26:LYS:HD2	2.26	0.51
13:2R:33:ARG:NH2	27:25:57:VAL:O	2.42	0.51
14:2S:15:ARG:HB3	14:2S:19:LYS:HE3	1.93	0.51
32:2a:460:G:H2'	32:2a:461:A:H2'	1.92	0.51
32:2a:1026:G:N3	32:2a:1026:G:H2'	2.26	0.51
32:2a:1218:C:H2'	32:2a:1219:U:C6	2.45	0.51
35:2d:173:TRP:CD1	35:2d:189:PRO:HG3	2.46	0.51
39:2h:119:LEU:HB3	39:2h:123:GLU:HB2	1.92	0.51
1:1A:1210:A:H5''	1:1A:1212:G:O4'	2.10	0.51
1:1A:1750:G:O2'	1:1A:2860:A:N1	2.33	0.51
1:1A:2820:A:OP2	13:1R:2:ARG:NH2	2.44	0.51
15:1T:111:ARG:NH2	32:1a:1464:G:OP2	2.44	0.51
32:1a:585:G:N3	32:1a:879:C:H4'	2.25	0.51
32:1a:1172:C:H2'	32:1a:1173:G:C8	2.46	0.51
35:1d:165:MET:HA	35:1d:168:ARG:HG2	1.93	0.51
35:1d:173:TRP:CD2	35:1d:189:PRO:HG3	2.45	0.51
48:1q:10:VAL:HG13	48:1q:19:VAL:HB	1.92	0.51
1:2A:631:A:OP1	11:2P:65:ARG:NH1	2.44	0.51
1:2A:2203:U:H2'	1:2A:2205:C:C6	2.46	0.51
1:2A:2218:U:O4'	23:21:52:ARG:NH2	2.44	0.51
2:2B:43:C:OP1	26:24:6:HIS:NE2	2.38	0.51
12:2Q:30:GLY:HA2	12:2Q:107:ALA:HB2	1.92	0.51
31:29:7:VAL:HG12	31:29:34:GLN:HB3	1.93	0.51
49:2r:35:ARG:O	49:2r:37:VAL:N	2.43	0.51
1:1A:336:C:O2'	20:1Y:35:TYR:OH	2.24	0.51
1:1A:1426:G:N7	3:1D:31:LYS:NZ	2.49	0.51
58:1B:230:ARG:HB3	61:1B:360:HOH:O	2.10	0.51
12:1Q:21:THR:HG21	12:1Q:101:ARG:HB2	1.92	0.51
13:1R:97:VAL:HG22	13:1R:114:VAL:HG22	1.93	0.51
32:1a:300:A:O2'	32:1a:564:C:N3	2.28	0.51
1:2A:1166:C:H2'	1:2A:1167:U:H6	1.75	0.51
21:2Z:108:PRO:HA	21:2Z:142:SER:O	2.10	0.51
32:2a:384:G:H2'	32:2a:385:C:C6	2.46	0.51
32:2a:964:A:N3	32:2a:969:A:O2'	2.38	0.51
32:2a:1005:A:H1'	32:2a:1025:U:C2	2.45	0.51
32:2a:1376:U:H2'	32:2a:1377:A:H8	1.76	0.51
35:2d:149:ALA:O	35:2d:152:SER:OG	2.26	0.51
37:2f:97:PHE:CZ	49:2r:61:LYS:HE3	2.46	0.51
38:2g:74:GLU:HG2	38:2g:91:VAL:HG22	1.92	0.51
44:2m:17:VAL:O	44:2m:20:THR:HG22	2.10	0.51
1:1A:572:A:OP2	17:1V:78:LYS:NZ	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1631(A):A:OP1	61:1A:4153:HOH:O	2.19	0.51
1:1A:2748:A:H5'	7:1H:4:ILE:HD13	1.92	0.51
4:1E:116:VAL:HG13	4:1E:122:PHE:HB2	1.93	0.51
7:1H:86:GLU:HG3	7:1H:132:ARG:HH21	1.76	0.51
21:1Z:52:SER:O	21:1Z:54:HIS:N	2.44	0.51
32:1a:1292:U:H2'	32:1a:1293:G:C8	2.46	0.51
33:1b:96:ARG:HG2	33:1b:98:LEU:HD23	1.92	0.51
35:1d:59:ARG:NH1	35:1d:59:ARG:HA	2.26	0.51
35:1d:173:TRP:CE3	35:1d:174:LEU:HG	2.46	0.51
38:1g:54:THR:O	38:1g:56:GLN:N	2.44	0.51
1:2A:189:G:OP1	61:2A:3771:HOH:O	2.19	0.51
1:2A:1110:G:H1'	1:2A:1111:A:C8	2.46	0.51
1:2A:2136:C:H2'	1:2A:2137:C:C5	2.45	0.51
1:2A:2171:A:H4'	1:2A:2172:U:OP1	2.10	0.51
1:2A:2646:C:OP2	1:2A:2732:G:O2'	2.27	0.51
12:2Q:54:MET:HE1	12:2Q:104:PHE:HB3	1.93	0.51
23:21:83:GLU:OE1	23:21:83:GLU:N	2.44	0.51
28:26:25:LYS:NZ	28:26:51:GLU:OE1	2.44	0.51
32:2a:333:G:H4'	51:2t:16:HIS:CE1	2.44	0.51
32:2a:457:C:H2'	32:2a:458:C:H6	1.75	0.51
32:2a:625:G:H2'	32:2a:626:U:H6	1.75	0.51
32:2a:629:G:H2'	32:2a:630:G:O4'	2.10	0.51
1:1A:2167:U:H2'	1:1A:2168:G:C8	2.46	0.51
1:1A:2364:C:H2'	1:1A:2365:G:O4'	2.10	0.51
1:1A:2870:C:H2'	1:1A:2871:C:O4'	2.11	0.51
7:1H:3:ARG:HH21	7:1H:65:HIS:HB3	1.75	0.51
13:1R:102:GLU:OE2	18:1W:37:ARG:NH1	2.38	0.51
15:1T:51:ARG:NH1	61:1T:301:HOH:O	2.28	0.51
32:1a:457:C:H2'	32:1a:458:C:H6	1.75	0.51
35:1d:163:GLU:O	35:1d:166:LYS:HG2	2.11	0.51
1:2A:588:U:H2'	1:2A:589:C:C6	2.45	0.51
1:2A:1783:A:H5'	1:2A:2608:G:H4'	1.93	0.51
12:2Q:111:GLU:O	12:2Q:115:MET:HG2	2.10	0.51
28:26:26:ASN:HB3	28:26:29:ASN:HB2	1.93	0.51
32:2a:1111:A:N1	34:2c:177:THR:OG1	2.39	0.51
32:2a:1287:A:N6	32:2a:1371:G:O4'	2.39	0.51
37:2f:30:LEU:HD23	37:2f:75:LEU:HD11	1.91	0.51
3:1D:134:ARG:HD3	3:1D:135:PHE:CZ	2.46	0.51
6:1G:131:TYR:HB3	6:1G:159:VAL:HG13	1.92	0.51
7:1H:41:MET:HE2	7:1H:65:HIS:HA	1.93	0.51
13:1R:24:GLN:NE2	61:1R:304:HOH:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:201:C:N4	32:1a:216:G:H1	1.96	0.51
32:1a:1343:G:H4'	40:1i:122:ALA:HB3	1.93	0.51
33:1b:100:GLY:N	33:1b:176:GLU:OE2	2.30	0.51
34:1c:7:PRO:O	34:1c:11:ARG:NH1	2.39	0.51
34:1c:13:GLY:HA3	45:1n:57:ARG:HH21	1.75	0.51
36:1e:100:VAL:O	36:1e:107:ARG:NH2	2.33	0.51
1:2A:394:A:O2'	1:2A:395:U:H5'	2.11	0.51
1:2A:1035:U:H2'	1:2A:1036:G:C8	2.46	0.51
1:2A:1647:G:H3'	1:2A:1647:G:OP2	2.11	0.51
1:2A:2150:U:H2'	1:2A:2151:G:C8	2.45	0.51
1:2A:2162:G:H4'	1:2A:2172:U:O2'	2.10	0.51
1:2A:2224:G:H4'	1:2A:2226:C:C2	2.46	0.51
26:24:48:ARG:HD2	26:24:52:THR:HA	1.93	0.51
32:2a:1039:C:H2'	32:2a:1040:U:O4'	2.11	0.51
1:1A:207:A:H2'	1:1A:208:C:O4'	2.11	0.51
1:1A:542:C:H2'	1:1A:543:C:C6	2.46	0.51
1:1A:1060:U:H4'	1:1A:1061:U:H5'	1.92	0.51
1:1A:1843:C:H5'	3:1D:253:GLN:NE2	2.25	0.51
2:1B:8:U:O3'	14:1S:25:ARG:NH2	2.40	0.51
7:1H:3:ARG:NH2	7:1H:65:HIS:HB3	2.26	0.51
32:1a:669:U:H2'	32:1a:670:G:C8	2.46	0.51
32:1a:1216:G:OP1	45:1n:2:ALA:HA	2.11	0.51
33:1b:60:ASP:OD1	33:1b:64:ARG:NE	2.30	0.51
1:2A:11:G:C2'	1:2A:12:U:H5'	2.39	0.51
1:2A:686:G:OP2	61:2A:3772:HOH:O	2.19	0.51
1:2A:1528:A:OP2	61:2A:3749:HOH:O	2.17	0.51
1:2A:1754:C:P	15:2T:96:ARG:HH12	2.34	0.51
32:2a:490:G:H2'	32:2a:491:G:C8	2.45	0.51
32:2a:539:A:H2'	32:2a:540:G:C8	2.46	0.51
38:2g:113:GLU:O	38:2g:119:ARG:NH1	2.44	0.51
1:1A:1056:G:N2	1:1A:1104:C:N3	2.59	0.50
1:1A:2130:U:O2'	1:1A:2133:G:O2'	2.28	0.50
8:1I:4:ILE:HG12	8:1I:18:VAL:HG22	1.93	0.50
32:1a:100:C:H2'	32:1a:101:A:C8	2.46	0.50
32:1a:160:A:H2'	32:1a:161:A:O4'	2.10	0.50
33:1b:128:GLU:O	33:1b:135:GLN:NE2	2.44	0.50
46:1o:12:ILE:HG23	46:1o:27:VAL:HG11	1.93	0.50
47:1p:7:ALA:HB1	47:1p:29:ASP:HA	1.93	0.50
15:2T:41:ARG:NH2	32:2a:346:G:OP1	2.43	0.50
1:1A:1611:C:OP1	61:1A:4156:HOH:O	2.19	0.50
18:1W:18:ARG:HG3	18:1W:76:VAL:HB	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1Z:198:LYS:HD3	21:1Z:202:GLU:HB3	1.93	0.50
26:14:55:ARG:H	26:14:56:VAL:HA	1.75	0.50
32:1a:995:C:N3	32:1a:1046:A:O2'	2.36	0.50
32:1a:1333:A:H2'	32:1a:1334:G:O4'	2.10	0.50
43:1l:56:ALA:HB3	43:1l:100:ILE:HD11	1.93	0.50
1:2A:1096:A:H2'	1:2A:1097:U:C6	2.47	0.50
1:2A:1147:C:H2'	1:2A:1148:A:H8	1.73	0.50
1:2A:2051:A:H5'	1:2A:2578:G:O4'	2.10	0.50
1:2A:2880:C:O3'	13:2R:90:ARG:NH1	2.44	0.50
32:2a:523:A:H61	43:2l:92:OTD:CG	2.25	0.50
32:2a:684:A:H2'	32:2a:685:G:C8	2.46	0.50
32:2a:1251:A:N1	32:2a:1354:C:O2'	2.41	0.50
35:2d:59:ARG:HH12	35:2d:62:GLN:HG3	1.76	0.50
36:2e:102:ALA:HB1	36:2e:106:PRO:HG2	1.92	0.50
51:2t:89:ARG:O	51:2t:93:GLU:HG2	2.11	0.50
1:1A:1063:G:H2'	1:1A:1063:G:N3	2.26	0.50
1:1A:2377:A:H2'	1:1A:2378:A:C8	2.46	0.50
1:1A:2430:A:N3	1:1A:2430:A:H2'	2.25	0.50
32:1a:269:C:H2'	32:1a:270:A:C8	2.46	0.50
1:2A:247:G:H4'	1:2A:386:G:C5	2.47	0.50
1:2A:271(L):U:H5'	8:2I:50:ARG:NH2	2.25	0.50
6:2G:179:PRO:HB2	26:24:42:PHE:HE2	1.74	0.50
13:2R:8:ARG:HE	13:2R:43:GLU:HG2	1.76	0.50
18:2W:82:LEU:HD22	18:2W:84:ARG:HH22	1.77	0.50
34:2c:54:ARG:HH21	34:2c:56:ASP:CG	2.19	0.50
48:2q:28:PRO:HA	48:2q:35:VAL:HA	1.92	0.50
1:1A:271(O):C:H2'	1:1A:271(P):C:C6	2.47	0.50
16:1U:49:HIS:HA	16:1U:52:ARG:HB3	1.93	0.50
26:14:44:THR:O	26:14:44:THR:OG1	2.28	0.50
30:18:28:GLY:O	30:18:36:LYS:NZ	2.39	0.50
32:1a:355:C:O2'	32:1a:388:G:N3	2.37	0.50
32:1a:418:C:H1'	32:1a:540:G:O2'	2.11	0.50
1:2A:2102:U:H2'	1:2A:2103:C:C6	2.46	0.50
1:2A:2134:A:H8	1:2A:2156:G:N2	2.00	0.50
1:2A:2577:A:H5'	27:25:3:LYS:HE3	1.92	0.50
2:2B:79:C:OP2	61:2B:303:HOH:O	2.19	0.50
19:2X:53:LYS:NZ	19:2X:55:ASN:OD1	2.27	0.50
21:2Z:99:TYR:HA	21:2Z:124:ILE:O	2.12	0.50
32:2a:143:A:H2	32:2a:220:G:H1	1.59	0.50
34:2c:22:TRP:HA	41:2j:93:GLY:HA2	1.93	0.50
32:1a:45:U:H2'	32:1a:46:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:384:G:H2'	32:1a:385:C:C6	2.46	0.50
32:1a:503:C:OP1	61:1a:1918:HOH:O	2.19	0.50
32:1a:1010:G:H2'	32:1a:1011:G:H8	1.76	0.50
32:1a:1104:G:OP1	33:1b:111:ARG:NH1	2.45	0.50
32:1a:1394:A:N1	32:1a:1500:A:O2'	2.43	0.50
32:1a:1479:C:H2'	32:1a:1480:G:H8	1.76	0.50
43:1l:82:VAL:O	43:1l:106:ASP:HB2	2.12	0.50
44:1m:40:ASN:HD21	44:1m:42:ALA:HB3	1.75	0.50
46:1o:36:ILE:HG23	46:1o:56:LEU:HD11	1.93	0.50
1:2A:1073:A:H2'	1:2A:1074:G:C8	2.46	0.50
1:2A:1153:C:H2'	1:2A:1154:G:O4'	2.12	0.50
1:2A:1503:U:H2'	1:2A:1504:C:C6	2.47	0.50
1:2A:1621:U:OP1	61:2A:3774:HOH:O	2.19	0.50
20:2Y:31:LEU:HB2	20:2Y:36:ALA:HB3	1.92	0.50
32:2a:564:C:O2'	39:2h:91:ARG:NH2	2.44	0.50
33:2b:83:MET:SD	33:2b:234:PRO:HB2	2.52	0.50
38:2g:4:ARG:HB3	38:2g:4:ARG:HH11	1.77	0.50
44:2m:50:GLU:HA	44:2m:53:VAL:HB	1.93	0.50
1:1A:1509(B):A:H2'	1:1A:1510:G:O4'	2.11	0.50
61:1A:4106:HOH:O	4:1E:110:GLY:O	2.19	0.50
15:1T:65:LYS:HE3	15:1T:67:SER:HB2	1.93	0.50
21:1Z:152:ALA:HA	21:1Z:155:LEU:HD22	1.94	0.50
26:14:52:THR:O	26:14:52:THR:OG1	2.23	0.50
32:1a:222:U:H2'	32:1a:223:U:C6	2.47	0.50
32:1a:1032:G:N2	32:1a:1033:G:N3	2.60	0.50
32:1a:1054:C:N4	53:1y:46:GLN:OE1	2.29	0.50
32:1a:1126:U:O2	32:1a:1280:A:H2'	2.12	0.50
41:1j:78:ASN:O	41:1j:81:THR:HG23	2.12	0.50
1:2A:2058:MA6:C2	56:2A:3672:ERY:H72	2.41	0.50
1:2A:2320:A:N3	1:2A:2320:A:H2'	2.27	0.50
21:2Z:97:GLU:HA	21:2Z:126:VAL:O	2.12	0.50
32:2a:664:G:P	49:2r:64:ARG:HH21	2.34	0.50
32:2a:757:U:H2'	32:2a:758:G:O4'	2.12	0.50
32:2a:757:U:OP1	32:2a:822:C:O2'	2.25	0.50
32:2a:1138:G:H2'	32:2a:1140:C:H5'	1.93	0.50
32:2a:1518:MA6:H8	32:2a:1518:MA6:O5'	2.11	0.50
40:2i:19:LEU:HD23	40:2i:61:ALA:HB2	1.94	0.50
1:1A:1250:G:H5''	61:1U:318:HOH:O	2.10	0.50
1:1A:1470:G:O6	61:1A:4149:HOH:O	2.18	0.50
2:1B:84:C:OP1	25:13:15:TYR:OH	2.18	0.50
6:1G:150:ASP:OD1	6:1G:150:ASP:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:1m:45:VAL:HG13	44:1m:48:LEU:HD12	1.93	0.50
1:2A:1057:A:N7	1:2A:1086:A:H2'	2.26	0.50
1:2A:1590:U:H2'	1:2A:1591:G:C8	2.46	0.50
1:2A:2561:A:H4'	10:2O:22:ILE:HD11	1.93	0.50
5:2F:195:ASP:OD1	5:2F:196:LEU:N	2.45	0.50
32:2a:724:G:C2	32:2a:725:G:C8	3.00	0.50
1:1A:1952:A:OP1	10:1O:44:LYS:NZ	2.30	0.50
1:1A:2086:U:H2'	1:1A:2087:G:C8	2.46	0.50
1:1A:2181:G:H2'	1:1A:2182:G:H8	1.77	0.50
1:1A:2364:C:OP1	22:10:55:ARG:NH1	2.44	0.50
5:1F:28:ILE:HD11	5:1F:115:ALA:HB3	1.93	0.50
12:1Q:78:PRO:O	12:1Q:81:VAL:HG22	2.11	0.50
23:11:64:ALA:HA	23:11:67:ILE:HG13	1.92	0.50
32:1a:689:C:OP1	42:1k:27:ASN:ND2	2.43	0.50
39:1h:20:TYR:HA	39:1h:65:TYR:CZ	2.46	0.50
1:2A:1833:U:OP1	61:2A:3777:HOH:O	2.19	0.50
12:2Q:34:LEU:HB2	12:2Q:118:LEU:HD22	1.93	0.50
32:2a:113:G:N3	32:2a:353:A:O2'	2.39	0.50
33:2b:195:ASP:OD1	33:2b:195:ASP:N	2.44	0.50
32:1a:425:G:O3'	35:1d:45:GLN:NE2	2.44	0.50
32:1a:434:U:H2'	32:1a:435:C:C6	2.47	0.50
32:1a:662:G:H2'	32:1a:663:A:C8	2.47	0.50
37:1f:38:GLU:HB2	37:1f:64:GLN:HG2	1.94	0.50
53:1y:30:TRP:CZ2	53:1y:86:ASN:HB2	2.47	0.50
1:2A:84:A:N1	1:2A:98:G:O2'	2.30	0.50
1:2A:422:A:H2'	1:2A:423:A:C8	2.47	0.50
1:2A:2680:C:H5'	4:2E:189:PRO:HA	1.94	0.50
3:2D:206:LEU:HD22	3:2D:211:ARG:HG2	1.94	0.50
31:29:14:CYS:HA	31:29:27:CYS:HB2	1.94	0.50
32:2a:1323:G:H4'	32:2a:1363:C:N3	2.26	0.50
33:2b:80:ILE:HD12	33:2b:208:ILE:HG23	1.93	0.50
34:2c:188:LEU:HD11	34:2c:195:VAL:HG22	1.94	0.50
1:1A:279:C:N4	1:1A:361:G:H1	2.04	0.49
32:1a:1412:C:H2'	32:1a:1413:A:C8	2.47	0.49
33:1b:185:ILE:HG22	33:1b:199:TYR:HD2	1.77	0.49
36:1e:37:ARG:HH12	36:1e:111:GLU:HG2	1.75	0.49
36:1e:57:LYS:HG2	36:1e:61:TYR:CE2	2.46	0.49
1:2A:897:C:H2'	1:2A:898:C:H6	1.76	0.49
32:2a:1129:C:H1'	32:2a:1130:A:N7	2.26	0.49
32:2a:1530:G:H2'	32:2a:1531:A:C8	2.47	0.49
38:2g:132:GLY:O	38:2g:136:LYS:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2i:50:LEU:HB3	40:2i:56:LEU:HA	1.93	0.49
1:1A:1503:U:H2'	1:1A:1504:C:C6	2.46	0.49
1:1A:2286:A:N1	61:1A:4322:HOH:O	2.34	0.49
1:1A:2314:C:H2'	1:1A:2315:G:H8	1.77	0.49
1:1A:2839:G:H5'	13:1R:46:GLY:HA2	1.93	0.49
3:1D:10:THR:OG1	3:1D:13:ARG:HG2	2.13	0.49
3:1D:71:ASP:HB3	3:1D:103:ARG:HH22	1.77	0.49
5:1F:175:THR:OG1	58:1F:318:ARG:NH1	2.39	0.49
37:1f:28:ARG:O	37:1f:32:ASN:N	2.27	0.49
1:2A:13:A:N1	1:2A:525:U:H2'	2.28	0.49
1:2A:65:C:H2'	1:2A:66:C:C6	2.47	0.49
1:2A:973:A:H8	1:2A:973:A:OP1	1.95	0.49
1:2A:1778:U:H2'	1:2A:1784:A:N6	2.27	0.49
1:2A:1815:A:OP2	3:2D:54:ARG:NH2	2.45	0.49
1:2A:2074:U:H2'	1:2A:2075:U:C6	2.46	0.49
1:2A:2243:U:H2'	1:2A:2244:U:C6	2.47	0.49
17:2V:62:LEU:HD11	17:2V:95:LEU:HB2	1.94	0.49
17:2V:98:GLU:OE2	17:2V:100:ARG:NH1	2.45	0.49
36:2e:65:ASN:C	36:2e:65:ASN:HD22	2.20	0.49
1:1A:1016:G:N7	61:1A:4344:HOH:O	2.35	0.49
1:1A:1113:U:H2'	1:1A:1114:G:H8	1.76	0.49
4:1E:54:GLN:OE1	4:1E:55:ASN:N	2.45	0.49
5:1F:132:VAL:HG22	5:1F:163:VAL:HG22	1.93	0.49
8:1I:102:SER:OG	8:1I:103:ARG:N	2.44	0.49
20:1Y:99:CYS:HB2	20:1Y:106:LEU:HD21	1.93	0.49
32:1a:392:G:H2'	32:1a:393:A:H8	1.78	0.49
32:1a:1053:G:N7	32:1a:1200:C:H5''	2.28	0.49
32:1a:1366:C:H2'	32:1a:1367:C:H6	1.77	0.49
35:1d:64:LEU:HD22	35:1d:75:PHE:HE1	1.78	0.49
37:1f:89:MET:HG2	37:1f:91:VAL:HG23	1.94	0.49
47:1p:25:ARG:HH11	47:1p:25:ARG:HG3	1.76	0.49
1:2A:39:C:O2	5:2F:46:ARG:NH2	2.45	0.49
1:2A:1504:C:H2'	1:2A:1505:C:H6	1.77	0.49
24:22:63:VAL:HA	24:22:66:GLU:OE1	2.12	0.49
32:2a:1070:U:H2'	32:2a:1071:C:H6	1.76	0.49
33:2b:121:LEU:O	33:2b:127:ILE:HG12	2.12	0.49
34:2c:114:PRO:HA	34:2c:185:GLY:HA3	1.94	0.49
35:2d:22:LYS:HG3	60:2d:501:SF4:S4	2.53	0.49
1:1A:55:G:O2'	1:1A:127:A:N1	2.43	0.49
32:1a:501:C:H2'	32:1a:502:G:C8	2.48	0.49
32:1a:1070:U:H2'	32:1a:1071:C:H6	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:277:C:H1'	1:2A:278:A:P	2.53	0.49
1:2A:1087:G:H1	1:2A:1102:C:H42	1.59	0.49
18:2W:2:GLU:OE2	18:2W:72:LYS:NZ	2.31	0.49
32:2a:101:A:H5''	51:2t:10:LEU:HD21	1.95	0.49
32:2a:973:G:H1'	41:2j:54:PHE:HD1	1.77	0.49
32:2a:1060:C:O2'	41:2j:56:HIS:ND1	2.30	0.49
32:2a:1288:A:N1	32:2a:1371:G:H1'	2.27	0.49
33:2b:84:GLU:OE1	33:2b:87:ARG:NH2	2.36	0.49
34:2c:57:ILE:HG12	34:2c:66:VAL:HG22	1.94	0.49
34:2c:131:ARG:HH11	34:2c:166:GLU:HG2	1.77	0.49
35:2d:14:ARG:HA	35:2d:39:PRO:HB3	1.94	0.49
51:2t:57:ARG:HH22	51:2t:100:ILE:HD12	1.78	0.49
1:1A:2101:G:H2'	1:1A:2102:U:H6	1.76	0.49
1:1A:2291:U:H2'	1:1A:2292:C:C6	2.48	0.49
35:1d:12:CYS:SG	35:1d:19:LEU:N	2.86	0.49
1:2A:652(B):A:N6	1:2A:655:A:O2'	2.35	0.49
1:2A:1881:C:H2'	1:2A:1882:C:C6	2.47	0.49
1:2A:2802:G:H2'	1:2A:2803:C:O4'	2.11	0.49
6:2G:33:ARG:O	6:2G:161:THR:HG23	2.12	0.49
6:2G:131:TYR:HE2	6:2G:133:LEU:HD22	1.78	0.49
11:2P:50:ARG:NH1	61:2P:308:HOH:O	2.45	0.49
14:2S:85:VAL:HG11	14:2S:110:LEU:HG	1.93	0.49
26:24:59:PHE:HB3	26:24:61:ARG:CG	2.42	0.49
27:25:33:CYS:HB2	27:25:40:LYS:HD3	1.93	0.49
32:2a:922:G:H4'	36:2e:20:GLN:HA	1.94	0.49
32:2a:1320:C:H2'	32:2a:1321:C:O4'	2.13	0.49
32:2a:1371:G:OP1	40:2i:12:GLU:HB2	2.12	0.49
1:1A:566:U:H5''	11:1P:29:LYS:HE3	1.93	0.49
1:1A:1098:A:H2'	1:1A:1099:G:O4'	2.12	0.49
15:1T:24:PRO:HA	15:1T:49:VAL:HG22	1.95	0.49
15:1T:51:ARG:HG3	15:1T:98:LYS:HE3	1.95	0.49
23:11:23:LYS:HB3	23:11:29:GLY:HA3	1.94	0.49
24:12:63:VAL:O	24:12:67:LYS:HG2	2.12	0.49
34:1c:116:VAL:HG21	34:1c:202:ILE:HD11	1.95	0.49
36:1e:102:ALA:HB1	36:1e:106:PRO:HG2	1.95	0.49
38:1g:111:ARG:HB3	38:1g:113:GLU:HG2	1.94	0.49
40:1i:19:LEU:HD11	40:1i:85:LEU:HG	1.94	0.49
41:1j:39:PRO:HA	41:1j:70:ARG:HD3	1.95	0.49
1:2A:730:C:OP2	61:2A:3751:HOH:O	2.19	0.49
1:2A:996:A:H4'	16:2U:91:ASP:OD2	2.12	0.49
1:2A:2537:U:H2'	1:2A:2538:C:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:2H:11:VAL:HG12	7:2H:15:VAL:HG23	1.95	0.49
7:2H:24:VAL:HG13	7:2H:37:VAL:HG21	1.94	0.49
7:2H:55:PRO:HG2	7:2H:61:HIS:CE1	2.47	0.49
11:2P:90:ARG:NH1	11:2P:105:LEU:HD21	2.28	0.49
23:21:3:LYS:HB2	23:21:61:ARG:HH22	1.77	0.49
32:2a:51:A:N1	32:2a:314:C:O2'	2.42	0.49
32:2a:1239:A:O2'	38:2g:114:ARG:O	2.29	0.49
1:1A:1094:U:O2'	1:1A:1096:A:N7	2.42	0.49
1:1A:1899:G:N3	1:1A:1899:G:H2'	2.27	0.49
1:1A:2171:A:H1'	1:1A:2172:U:C5	2.47	0.49
1:1A:2378:A:H2'	14:1S:21:THR:HG21	1.94	0.49
7:1H:3:ARG:HB3	7:1H:6:ARG:HG2	1.95	0.49
30:18:15:LYS:HB2	57:18:103:MPD:H11	1.93	0.49
32:1a:600:C:H2'	32:1a:601:C:C6	2.47	0.49
32:1a:669:U:H2'	32:1a:670:G:H8	1.77	0.49
32:1a:1014:A:H4'	50:1s:14:HIS:CE1	2.47	0.49
32:1a:1400:5MC:C2	53:1y:63:ALA:HA	2.48	0.49
33:1b:72:GLY:O	33:1b:94:ASN:HA	2.12	0.49
1:2A:955:C:OP1	12:2Q:87:LYS:NZ	2.29	0.49
1:2A:1278:A:OP1	13:2R:36:THR:HG23	2.13	0.49
15:2T:108:ARG:NH1	32:2a:1464:G:OP1	2.46	0.49
61:2U:303:HOH:O	17:2V:13:ARG:NH1	2.45	0.49
32:2a:269:C:H2'	32:2a:270:A:C8	2.48	0.49
32:2a:979:C:H42	45:2n:18:VAL:HB	1.77	0.49
32:2a:1206:G:C6	32:2a:1207:2MG:C6	3.00	0.49
34:2c:17:ASP:OD1	34:2c:18:TRP:N	2.45	0.49
7:1H:33:LEU:HD21	7:1H:136:ILE:HG13	1.95	0.49
25:13:3:ARG:HD3	25:13:60:GLU:CD	2.38	0.49
27:15:40:LYS:NZ	61:15:204:HOH:O	2.45	0.49
32:1a:1101:A:H4'	32:1a:1102:A:O5'	2.13	0.49
1:2A:1578:U:C2'	1:2A:1579:A:H5'	2.42	0.49
1:2A:2772:C:OP1	61:2A:3779:HOH:O	2.20	0.49
8:2I:1:MET:HE2	8:2I:38:LEU:HD21	1.95	0.49
11:2P:125:VAL:HG13	11:2P:138:LEU:HD21	1.95	0.49
21:2Z:128:VAL:HG22	21:2Z:132:ASN:HB3	1.94	0.49
32:2a:176:C:H2'	32:2a:177:C:C6	2.48	0.49
32:2a:583:A:H2'	32:2a:584:G:O4'	2.13	0.49
32:2a:1024:G:H2'	32:2a:1025:U:H5''	1.93	0.49
32:2a:1402:4OC:CM2	32:2a:1403:C:H5'	2.42	0.49
28:16:10:LEU:HB2	28:16:52:VAL:HG12	1.94	0.49
34:1c:5:ILE:HD11	45:1n:49:HIS:HE1	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:1j:31:GLY:HA2	41:1j:32:ALA:HA	1.58	0.49
48:1q:66:SER:OG	48:1q:67:LYS:O	2.30	0.49
50:1s:22:LEU:HD22	50:1s:28:LYS:HA	1.94	0.49
1:2A:1453:U:O2'	1:2A:1455:G:N7	2.40	0.49
1:2A:1718:G:H2'	1:2A:1719:G:H8	1.76	0.49
1:2A:1803:A:H4'	3:2D:259:THR:HG23	1.94	0.49
1:2A:2316:C:H2'	1:2A:2317:C:C6	2.48	0.49
32:2a:461:A:O2'	32:2a:471:G:N7	2.42	0.49
32:2a:645:C:H2'	32:2a:646:U:C6	2.47	0.49
32:2a:794:A:O2'	32:2a:1521:G:O3'	2.31	0.49
32:2a:1128:C:H1'	32:2a:1147:C:H42	1.77	0.49
37:2f:83:ASP:N	37:2f:83:ASP:OD1	2.46	0.49
1:1A:1171:G:H3'	1:1A:1173:G:H5'	1.94	0.49
1:1A:2064:C:H2'	1:1A:2065:C:C6	2.48	0.49
2:1B:7:G:H5''	2:1B:7:G:H8	1.77	0.49
28:16:13:CYS:SG	28:16:47:THR:HG21	2.53	0.49
32:1a:92:C:H2'	32:1a:93:G:C8	2.48	0.49
32:1a:673:G:O3'	37:1f:87:ARG:NH2	2.46	0.49
32:1a:1029:C:O2	32:1a:1032:G:N1	2.39	0.49
32:1a:1118:C:H1'	32:1a:1179:A:C4	2.48	0.49
33:1b:163:PHE:HA	33:1b:185:ILE:HG12	1.95	0.49
33:1b:218:ALA:O	33:1b:222:ILE:HG13	2.12	0.49
40:1i:4:TYR:HD1	40:1i:87:GLN:HG2	1.77	0.49
43:1l:53:ARG:HB2	43:1l:93:LEU:HD11	1.93	0.49
1:2A:1096:A:H2'	1:2A:1097:U:H6	1.78	0.49
1:2A:1165:U:H2'	1:2A:1166:C:C6	2.48	0.49
1:2A:1493:C:N4	1:2A:2206:G:O2'	2.46	0.49
4:2E:55:ASN:HB3	4:2E:58:ARG:HG3	1.95	0.49
32:2a:132:C:H2'	32:2a:133:U:O4'	2.12	0.49
32:2a:501:C:H2'	32:2a:502:G:C8	2.47	0.49
32:2a:603:U:H2'	32:2a:604:G:H8	1.78	0.49
32:2a:1014:A:C2	32:2a:1219:U:H1'	2.47	0.49
32:2a:1095:U:OP2	32:2a:1108:G:N1	2.42	0.49
53:2y:61:LEU:HB3	53:2y:81:LEU:HD22	1.95	0.49
1:1A:2470:G:O6	1:1A:2476:A:O2'	2.27	0.48
5:1F:143:ALA:HB1	5:1F:148:LEU:HB2	1.95	0.48
18:1W:12:ILE:HD13	18:1W:17:VAL:HG13	1.95	0.48
32:1a:192:U:H2'	32:1a:193:C:H6	1.78	0.48
32:1a:674:G:H2'	32:1a:675:A:C8	2.48	0.48
35:1d:61:LYS:HE2	35:1d:206:PHE:CE2	2.48	0.48
37:1f:22:GLU:OE2	37:1f:82:ARG:NH2	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:1h:29:SER:HB3	39:1h:32:LYS:HG3	1.94	0.48
51:1t:49:ALA:HB1	51:1t:98:PRO:HA	1.95	0.48
1:2A:2439:A:H5'	1:2A:2439:A:C8	2.48	0.48
4:2E:72:VAL:HG12	4:2E:73:GLU:O	2.13	0.48
8:2I:26:ALA:HB1	8:2I:31:LEU:HD13	1.95	0.48
13:2R:44:LEU:HD22	13:2R:48:VAL:HG23	1.95	0.48
22:20:38:VAL:HB	22:20:59:LEU:HB2	1.96	0.48
26:24:59:PHE:HB2	26:24:62:ARG:HH21	1.78	0.48
32:2a:142:G:H2'	32:2a:143:A:H8	1.76	0.48
32:2a:415:A:H2'	32:2a:416:G:O4'	2.12	0.48
32:2a:1005:A:N3	32:2a:1005:A:H2'	2.28	0.48
32:2a:1158:C:O2	32:2a:1158:C:H2'	2.12	0.48
1:1A:1378:A:OP1	29:17:10:ARG:NH2	2.47	0.48
1:1A:2024:G:H2'	1:1A:2025:C:H6	1.79	0.48
17:1V:21:ARG:HD3	17:1V:91:TYR:CD1	2.48	0.48
32:1a:169:C:H2'	32:1a:170:U:C6	2.49	0.48
32:1a:1003:G:H8	32:1a:1003:G:O5'	1.95	0.48
1:2A:1094:U:H4'	1:2A:1096:A:H62	1.78	0.48
1:2A:2526:G:H2'	1:2A:2527:C:H6	1.78	0.48
1:2A:2821:A:H2'	1:2A:2822:G:C8	2.48	0.48
8:2I:77:LEU:HD13	8:2I:101:LEU:HG	1.94	0.48
33:2b:115:LEU:O	33:2b:119:GLU:HG2	2.13	0.48
40:2i:32:ASP:HB3	40:2i:35:GLU:HB3	1.95	0.48
1:1A:1056:G:H5''	1:1A:1057:A:O4'	2.13	0.48
1:1A:1268:A:H2'	1:1A:1269:A:O4'	2.13	0.48
1:1A:1518:U:H2'	1:1A:1519:G:O4'	2.13	0.48
32:1a:920:U:H2'	32:1a:921:U:C6	2.48	0.48
32:1a:1070:U:H2'	32:1a:1071:C:C6	2.48	0.48
32:1a:1323:G:H2'	32:1a:1324:A:C8	2.48	0.48
47:1p:38:TYR:CZ	47:1p:50:LYS:HB2	2.49	0.48
1:2A:921:G:H4'	1:2A:2269:A:C5	2.48	0.48
1:2A:952:G:OP1	12:2Q:16:ARG:NH2	2.46	0.48
1:2A:2119:A:C2	1:2A:2171:A:H5'	2.49	0.48
32:2a:189(L):G:H2'	32:2a:190:U:C6	2.47	0.48
32:2a:254:G:N2	48:2q:16:GLN:OE1	2.38	0.48
32:2a:487:A:H2'	32:2a:488:C:O4'	2.13	0.48
32:2a:1324:A:O4'	32:2a:1362:C:H4'	2.13	0.48
51:2t:45:GLN:HA	51:2t:91:LEU:HD13	1.95	0.48
1:1A:300:A:H2'	1:1A:334:C:H1'	1.94	0.48
1:1A:580:C:H2'	1:1A:581:C:C6	2.47	0.48
1:1A:1712:C:H2'	1:1A:1713:U:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1920:OMC:HM22	1:1A:1921:G:O4'	2.13	0.48
1:1A:2206:G:H2'	1:1A:2207:G:C2	2.49	0.48
1:1A:2683:C:OP1	15:1T:53:ARG:NH2	2.47	0.48
32:1a:1218:C:H2'	32:1a:1219:U:C6	2.48	0.48
32:1a:1244:C:H2'	32:1a:1245:A:C8	2.48	0.48
1:2A:171:G:H2'	1:2A:172:C:C6	2.48	0.48
1:2A:655:A:H8	1:2A:656:G:O4'	1.96	0.48
1:2A:1671:U:O2'	1:2A:1673:U:H5	1.97	0.48
1:2A:1899:G:H2'	1:2A:1899:G:N3	2.28	0.48
1:2A:2319:G:N1	14:2S:3:ARG:HA	2.28	0.48
1:2A:2526:G:H5'	1:2A:2742:C:O2'	2.13	0.48
8:2I:1:MET:N	8:2I:21:VAL:O	2.39	0.48
8:2I:7:GLU:OE1	61:2I:202:HOH:O	2.20	0.48
32:2a:299:G:H2'	32:2a:300:A:C8	2.48	0.48
32:2a:1184:G:H2'	32:2a:1185:G:C8	2.48	0.48
50:2s:52:TYR:HA	50:2s:56:GLN:O	2.14	0.48
1:1A:118:A:N3	1:1A:178:G:H1'	2.29	0.48
1:1A:878:A:H2'	1:1A:879:G:H5'	1.95	0.48
1:1A:2791:C:H5'	1:1A:2893:G:N2	2.28	0.48
5:1F:67:GLN:NE2	61:1F:404:HOH:O	2.41	0.48
13:1R:56:LYS:NZ	13:1R:90:ARG:O	2.46	0.48
32:1a:1486:G:H2'	32:1a:1487:G:O4'	2.13	0.48
34:1c:6:HIS:HD2	34:1c:9:GLY:H	1.57	0.48
1:2A:2125:G:N2	1:2A:2172:U:H3'	2.29	0.48
1:2A:2315:G:H2'	1:2A:2316:C:C6	2.48	0.48
1:2A:2653:U:O2'	7:2H:110:SER:HB3	2.13	0.48
2:2B:2:C:H42	2:2B:119:G:H1	1.60	0.48
5:2F:122:LYS:NZ	5:2F:152:GLU:OE2	2.31	0.48
14:2S:49:VAL:HG21	14:2S:77:ALA:HB2	1.95	0.48
32:2a:762:C:H2'	32:2a:763:G:C8	2.49	0.48
32:2a:1002:G:N3	32:2a:1003:G:C8	2.82	0.48
32:2a:1305:G:N2	32:2a:1331:G:H1'	2.28	0.48
32:2a:1402:4OC:HM22	32:2a:1403:C:H5'	1.94	0.48
41:2j:29:ARG:C	41:2j:31:GLY:H	2.21	0.48
48:2q:67:LYS:C	48:2q:69:LYS:H	2.20	0.48
53:2y:41:LEU:HD12	53:2y:41:LEU:HA	1.72	0.48
5:1F:38:ARG:NH2	61:1F:406:HOH:O	2.46	0.48
8:1I:72:LEU:C	8:1I:74:ASN:H	2.21	0.48
12:1Q:20:ALA:HB2	21:1Z:79:ARG:HG3	1.95	0.48
23:11:3:LYS:O	23:11:12:PRO:HD3	2.13	0.48
32:1a:186:C:H2'	32:1a:187:C:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:235:C:H2'	32:1a:236:G:C8	2.49	0.48
32:1a:1227:A:OP1	50:1s:80:TYR:OH	2.21	0.48
33:1b:61:LEU:HD21	33:1b:160:ASP:HB2	1.95	0.48
35:1d:173:TRP:CD1	35:1d:173:TRP:H	2.30	0.48
40:1i:7:THR:O	40:1i:83:ARG:NH1	2.47	0.48
47:1p:75:ARG:HG3	47:1p:80:PHE:HD2	1.78	0.48
1:2A:1020:A:N1	1:2A:1141:U:O2'	2.34	0.48
1:2A:2652:C:H2'	1:2A:2653:U:O4'	2.13	0.48
1:2A:2870:C:H2'	1:2A:2871:C:O4'	2.13	0.48
18:2W:24:ILE:HD12	18:2W:71:VAL:HG21	1.95	0.48
23:21:80:LEU:O	61:21:201:HOH:O	2.20	0.48
32:2a:728:A:H2'	32:2a:729:A:C8	2.49	0.48
32:2a:1349:A:H5''	40:2i:121:ARG:HB2	1.94	0.48
1:1A:1851:U:H2'	1:1A:1852:C:O4'	2.13	0.48
1:1A:2162:G:H1'	1:1A:2173:A:C8	2.48	0.48
1:1A:2331:G:O2'	22:10:43:THR:HG22	2.14	0.48
1:1A:2439:A:H5'	1:1A:2439:A:C8	2.48	0.48
6:1G:139:LEU:HD21	6:1G:149:VAL:HG11	1.96	0.48
9:1N:15:LEU:HB2	9:1N:135:PRO:HB2	1.96	0.48
10:1O:7:TYR:HE1	10:1O:20:MET:HE3	1.78	0.48
11:1P:63:PRO:HD3	30:18:27:THR:HG22	1.95	0.48
32:1a:544:G:OP1	35:1d:59:ARG:NH2	2.46	0.48
33:1b:155:LEU:HD11	33:1b:159:PRO:HG3	1.95	0.48
36:1e:101:ILE:HG13	36:1e:119:LEU:HD23	1.95	0.48
39:1h:7:ALA:HB2	39:1h:85:ARG:HG3	1.95	0.48
1:2A:1041:C:N4	1:2A:1114:G:H1	2.11	0.48
1:2A:1110:G:H1'	1:2A:1111:A:H8	1.78	0.48
1:2A:1528(A):A:H2'	1:2A:1529:G:O4'	2.14	0.48
1:2A:1814:G:H4'	3:2D:51:VAL:HG21	1.96	0.48
1:2A:2177:C:H2'	1:2A:2178:C:O4'	2.13	0.48
4:2E:48:GLN:NE2	4:2E:78:LEU:HD13	2.29	0.48
10:2O:115:VAL:HG13	10:2O:121:VAL:HG21	1.95	0.48
11:2P:59:LEU:HD21	30:28:10:ALA:HA	1.96	0.48
11:2P:88:LEU:HD11	11:2P:114:ILE:HD12	1.95	0.48
11:2P:121:LYS:O	11:2P:123:LEU:N	2.46	0.48
16:2U:76:TYR:CZ	16:2U:80:ILE:HG13	2.47	0.48
25:23:3:ARG:NH2	25:23:60:GLU:O	2.47	0.48
26:24:24:THR:OG1	26:24:25:TYR:N	2.47	0.48
32:2a:1135:U:H2'	32:2a:1137:C:N3	2.29	0.48
32:2a:1187:G:H5'	40:2i:113:LYS:HE2	1.96	0.48
1:1A:185:U:H4'	1:1A:218:A:H4'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:910:A:N1	1:1A:2277:G:H1'	2.28	0.48
1:1A:1778:U:H2'	1:1A:1784:A:N6	2.29	0.48
8:1I:116:LEU:HD11	8:1I:120:ILE:HG13	1.94	0.48
10:1O:64:ARG:NH2	10:1O:99:PHE:O	2.47	0.48
15:1T:39:ARG:HH12	15:1T:41:ARG:HD3	1.78	0.48
32:1a:1197:G:OP2	61:1a:1917:HOH:O	2.19	0.48
32:1a:1329:A:P	44:1m:28:ALA:HB3	2.54	0.48
33:1b:185:ILE:HG22	33:1b:199:TYR:CD2	2.48	0.48
35:1d:111:ALA:HB2	35:1d:120:LEU:HD12	1.96	0.48
1:2A:42:G:H2'	1:2A:43:A:O4'	2.14	0.48
1:2A:223:A:N1	1:2A:407:G:O2'	2.42	0.48
1:2A:455:C:N3	1:2A:472:A:H2'	2.29	0.48
1:2A:1031:G:H5''	31:29:8:LYS:HE3	1.95	0.48
1:2A:1056:G:H5''	1:2A:1057:A:H5'	1.95	0.48
1:2A:1067:A:H4'	1:2A:1068:G:OP2	2.10	0.48
1:2A:1116:C:H2'	1:2A:1117:G:C8	2.49	0.48
1:2A:1772:G:O6	57:2A:3673:MPD:H32	2.13	0.48
1:2A:2648:C:H2'	1:2A:2649:U:C6	2.49	0.48
19:2X:43:VAL:HG21	19:2X:81:VAL:HG11	1.95	0.48
19:2X:44:GLU:O	19:2X:48:LYS:N	2.46	0.48
26:24:9:LEU:HD23	26:24:27:THR:HG23	1.95	0.48
32:2a:673:G:O3'	37:2f:87:ARG:NH2	2.47	0.48
32:2a:677:U:H3	32:2a:713:G:H22	1.60	0.48
33:2b:15:VAL:O	33:2b:17:PHE:N	2.46	0.48
34:2c:6:HIS:CE1	34:2c:184:TYR:HD2	2.32	0.48
36:2e:74:GLY:HA3	36:2e:116:THR:HG22	1.94	0.48
36:2e:152:ARG:HB3	39:2h:43:GLY:HA3	1.95	0.48
1:1A:811:U:H2'	11:1P:21:ARG:HA	1.95	0.48
1:1A:2690:C:OP2	1:1A:2690:C:H6	1.97	0.48
21:1Z:146:ILE:HA	21:1Z:147:GLY:HA2	1.62	0.48
26:14:24:THR:OG1	26:14:25:TYR:N	2.47	0.48
32:1a:21:G:H2'	32:1a:22:G:C8	2.49	0.48
32:1a:270:A:H2'	32:1a:271:C:C6	2.48	0.48
32:1a:706:A:N3	42:1k:31:THR:HG21	2.29	0.48
32:1a:998:G:H2'	32:1a:999:C:C6	2.48	0.48
32:1a:1004:A:C5	32:1a:1037:C:C2	3.02	0.48
32:1a:1162:C:H2'	32:1a:1163:C:H6	1.79	0.48
32:1a:1479:C:H2'	32:1a:1480:G:C8	2.49	0.48
34:1c:189:ALA:HB3	34:1c:196:LEU:HB2	1.96	0.48
44:1m:14:ARG:HG2	44:1m:44:ARG:HE	1.79	0.48
48:1q:67:LYS:C	48:1q:69:LYS:H	2.22	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1092:C:H2'	1:2A:1092:C:O2	2.14	0.48
1:2A:2098:U:H3	1:2A:2191:G:H1	1.62	0.48
1:2A:2343:C:O3'	1:2A:2373:G:H4'	2.14	0.48
1:2A:2698:U:H2'	1:2A:2699:C:C6	2.48	0.48
2:2B:3:C:H2'	2:2B:4:C:H6	1.79	0.48
2:2B:95:C:H2'	2:2B:96:U:C6	2.49	0.48
12:2Q:58:PHE:C	12:2Q:60:ARG:H	2.21	0.48
21:2Z:28:MET:HE2	21:2Z:59:LEU:HD13	1.96	0.48
32:2a:731:G:H5'	32:2a:766:A:H4'	1.96	0.48
32:2a:973:G:H1'	41:2j:54:PHE:CD1	2.49	0.48
32:2a:1248:A:N3	40:2i:70:LYS:NZ	2.62	0.48
33:2b:96:ARG:HD2	33:2b:97:TRP:O	2.13	0.48
34:2c:70:VAL:HG22	34:2c:72:LYS:H	1.79	0.48
37:2f:97:PHE:HD2	49:2r:31:LEU:HD12	1.79	0.48
1:1A:1064:C:C4	1:1A:1074:G:O6	2.67	0.48
1:1A:2058:MA6:C10	56:1A:4027:ERY:H293	2.43	0.48
1:1A:2133:G:C2	1:1A:2157:G:H2'	2.49	0.48
11:1P:63:PRO:HG2	30:18:25:MET:HB2	1.95	0.48
18:1W:65:LEU:HD13	18:1W:68:ARG:HD2	1.95	0.48
32:1a:1168:A:H2'	32:1a:1169:A:C8	2.49	0.48
32:1a:1172:C:H2'	32:1a:1173:G:H8	1.77	0.48
36:1e:52:PRO:O	36:1e:55:VAL:HG12	2.14	0.48
40:1i:10:ARG:HG3	40:1i:11:LYS:H	1.79	0.48
43:1l:88:GLY:O	43:1l:99:HIS:HD2	1.97	0.48
1:2A:370:G:OP1	1:2A:403:U:N3	2.34	0.48
1:2A:1138:G:N3	9:2N:106:MET:HE2	2.28	0.48
1:2A:1153:C:OP2	61:2A:3782:HOH:O	2.20	0.48
1:2A:2286:A:P	28:26:29:ASN:HD22	2.37	0.48
1:2A:2639:A:H2'	1:2A:2640:G:O4'	2.14	0.48
1:2A:2849:U:O4	15:2T:23:ARG:NH2	2.34	0.48
6:2G:112:PRO:HG3	26:24:43:TYR:HE2	1.79	0.48
10:2O:1:MET:HG3	10:2O:67:LYS:HG2	1.96	0.48
21:2Z:152:ALA:O	21:2Z:155:LEU:HB2	2.14	0.48
32:2a:977:A:O2'	32:2a:981:U:N3	2.45	0.48
32:2a:1030(A):G:H2'	32:2a:1030(B):C:H5''	1.96	0.48
35:2d:68:TYR:OH	35:2d:98:GLU:OE2	2.29	0.48
39:2h:6:ILE:HB	39:2h:85:ARG:NH1	2.29	0.48
40:2i:4:TYR:O	40:2i:19:LEU:N	2.46	0.48
49:2r:66:LEU:O	49:2r:70:ILE:HG13	2.14	0.48
1:1A:324:A:N6	1:1A:338:G:O2'	2.47	0.47
7:1H:40:GLU:OE2	7:1H:60:ARG:NH1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:337:C:H2'	32:1a:338:A:C8	2.48	0.47
32:1a:382:A:H2'	32:1a:383:A:H8	1.78	0.47
1:2A:888:C:H2'	1:2A:889:C:N3	2.29	0.47
1:2A:1117:G:H2'	1:2A:1118:C:C6	2.49	0.47
1:2A:2804:C:H2'	1:2A:2805:G:O4'	2.14	0.47
2:2B:87:G:N2	2:2B:90:A:OP2	2.36	0.47
4:2E:7:VAL:HG13	4:2E:27:LEU:HB3	1.96	0.47
6:2G:38:VAL:HG22	6:2G:93:THR:HG23	1.95	0.47
18:2W:24:ILE:HA	18:2W:27:LYS:HG3	1.95	0.47
32:2a:56:U:H2'	32:2a:57:G:H8	1.79	0.47
32:2a:1028:C:H2'	32:2a:1033:G:H22	1.79	0.47
32:2a:1112:C:O2	34:2c:179:ARG:N	2.43	0.47
39:2h:19:VAL:HG23	39:2h:21:LYS:HG3	1.96	0.47
1:1A:1311:G:O2'	29:17:47:ARG:NH2	2.47	0.47
1:1A:2304:G:H22	1:1A:2312:U:H3	1.59	0.47
1:1A:2619:C:H4'	4:1E:151:TYR:O	2.14	0.47
1:1A:2693:A:H2'	1:1A:2694:G:H8	1.79	0.47
7:1H:137:ASP:HB3	7:1H:140:LYS:HB3	1.96	0.47
19:1X:60:ARG:NH1	29:17:47:ARG:HH12	2.12	0.47
32:1a:677:U:H3	32:1a:713:G:H22	1.62	0.47
32:1a:881:G:P	43:1l:12:ARG:HH22	2.37	0.47
37:1f:19:LEU:HD11	37:1f:59:TYR:CZ	2.49	0.47
1:2A:1086:A:H4'	1:2A:1103:A:H2	1.79	0.47
1:2A:1714:G:H2'	1:2A:1717:G:C8	2.49	0.47
1:2A:2111:C:N3	1:2A:2145:C:O2'	2.47	0.47
1:2A:2364:C:H2'	1:2A:2365:G:O4'	2.14	0.47
1:2A:2657:A:O3'	7:2H:160:LYS:NZ	2.47	0.47
1:2A:2808:U:H5''	1:2A:2891:G:O6	2.14	0.47
22:20:50:ASN:HB3	22:20:63:VAL:HG22	1.96	0.47
32:2a:340:U:H2'	32:2a:341:C:C6	2.49	0.47
32:2a:1119:C:H2'	32:2a:1120:G:C8	2.48	0.47
33:2b:80:ILE:HD11	33:2b:212:GLN:HG2	1.96	0.47
39:2h:116:LYS:NZ	39:2h:127:LEU:O	2.46	0.47
47:2p:6:LEU:HB3	47:2p:17:TYR:CD1	2.49	0.47
1:1A:2115:G:N3	1:1A:2117:A:N6	2.61	0.47
2:1B:66:A:N6	2:1B:108:U:H2'	2.29	0.47
3:1D:102:LYS:C	3:1D:103:ARG:HG2	2.38	0.47
9:1N:9:VAL:HG21	9:1N:39:ARG:HH12	1.79	0.47
32:1a:1492:A:H4'	32:1a:1493:A:C2	2.49	0.47
33:1b:185:ILE:HG22	33:1b:199:TYR:HB2	1.95	0.47
42:1k:27:ASN:OD1	42:1k:28:THR:N	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:1q:43:LEU:HD22	48:1q:68:ARG:HG2	1.96	0.47
1:2A:568:U:H5'	1:2A:945:A:N6	2.29	0.47
1:2A:825:C:O2	11:2P:55:ARG:NH1	2.47	0.47
1:2A:1178:C:H2'	1:2A:1179:C:C6	2.49	0.47
1:2A:1287:A:C8	13:2R:104:ARG:HD3	2.48	0.47
1:2A:2321:G:O2'	1:2A:2322:A:OP1	2.28	0.47
1:2A:2543:G:H2'	1:2A:2544:G:C8	2.48	0.47
10:2O:35:VAL:HG13	10:2O:65:THR:HG23	1.96	0.47
20:2Y:36:ALA:HB1	20:2Y:66:PRO:HB3	1.96	0.47
20:2Y:37:VAL:HG21	20:2Y:72:VAL:HG21	1.94	0.47
25:23:15:TYR:CE2	25:23:53:LEU:HD21	2.49	0.47
32:2a:130:A:O2'	32:2a:131:C:O5'	2.29	0.47
35:2d:111:ALA:HB1	35:2d:116:GLN:HG2	1.96	0.47
47:2p:19:ILE:HG22	47:2p:36:ILE:HG13	1.96	0.47
1:1A:329:G:OP1	20:1Y:71:LYS:NZ	2.43	0.47
1:1A:2181:G:H2'	1:1A:2182:G:C8	2.48	0.47
1:1A:2258:C:OP1	61:1A:4159:HOH:O	2.20	0.47
4:1E:178:GLU:H	4:1E:178:GLU:CD	2.22	0.47
15:1T:93:ARG:NH2	61:1T:306:HOH:O	2.48	0.47
21:1Z:150:LEU:O	21:1Z:171:ILE:HG13	2.13	0.47
32:1a:1060:C:C5	34:1c:2:GLY:HA3	2.50	0.47
32:1a:1264:C:H2'	32:1a:1265:G:H8	1.80	0.47
35:1d:53:ASP:O	35:1d:57:ARG:HG3	2.15	0.47
1:2A:1028:A:N6	1:2A:1125:G:H2'	2.30	0.47
9:2N:30:ILE:HG22	9:2N:34:LEU:HD22	1.95	0.47
21:2Z:30:ASN:ND2	21:2Z:90:VAL:HB	2.29	0.47
32:2a:19:C:H5''	36:2e:86:ALA:HB3	1.95	0.47
32:2a:60:A:H4'	32:2a:61:G:O5'	2.15	0.47
32:2a:255:G:OP1	48:2q:69:LYS:NZ	2.30	0.47
32:2a:748:C:H4'	32:2a:749:C:O5'	2.14	0.47
32:2a:1005:A:H1'	32:2a:1025:U:O2	2.14	0.47
32:2a:1226:C:N4	44:2m:104:ARG:HD2	2.30	0.47
48:2q:57:VAL:HG12	48:2q:76:LEU:HA	1.96	0.47
52:2u:2:GLY:C	52:2u:4:GLY:H	2.23	0.47
1:1A:1260:G:OP1	61:1A:4157:HOH:O	2.20	0.47
1:1A:2133:G:H3'	1:1A:2157:G:N2	2.29	0.47
1:1A:2441:C:OP2	1:1A:2586:C:O2'	2.25	0.47
1:1A:2869:G:H2'	1:1A:2870:C:O4'	2.14	0.47
2:1B:103:G:H21	21:1Z:73:GLN:NE2	2.12	0.47
5:1F:120:GLU:OE2	11:1P:1:MET:N	2.48	0.47
6:1G:43:LEU:HD11	6:1G:153:ARG:HD3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:737:A:OP1	37:1f:92:LYS:HB2	2.14	0.47
32:1a:1182:G:C3'	32:1a:1183:A:H5'	2.45	0.47
34:1c:124:ILE:HG21	34:1c:130:VAL:HG13	1.97	0.47
35:1d:107:ARG:HG3	35:1d:173:TRP:HH2	1.79	0.47
51:1t:57:ARG:NH1	51:1t:100:ILE:HD12	2.26	0.47
1:2A:729:G:C6	3:2D:208:LYS:HB2	2.50	0.47
1:2A:911:A:N6	12:2Q:11:LYS:O	2.45	0.47
1:2A:975:C:O2	61:2A:3755:HOH:O	2.16	0.47
1:2A:981:A:OP1	61:2A:3780:HOH:O	2.20	0.47
15:2T:60:THR:HG22	15:2T:77:PRO:HA	1.96	0.47
32:2a:36:C:H5''	43:2l:123:LYS:HE3	1.96	0.47
32:2a:1013:G:N2	32:2a:1016:A:OP2	2.47	0.47
32:2a:1221:G:OP1	32:2a:1320:C:N4	2.47	0.47
32:2a:1366:C:H2'	32:2a:1367:C:H6	1.79	0.47
34:2c:5:ILE:HG12	34:2c:6:HIS:H	1.78	0.47
38:2g:69:VAL:HG11	38:2g:134:ALA:HB1	1.97	0.47
39:2h:9:MET:HG3	39:2h:26:VAL:HG11	1.96	0.47
1:1A:1063:G:N2	1:1A:1075:C:N3	2.54	0.47
1:1A:2138:C:H2'	1:1A:2139:C:C5	2.49	0.47
6:1G:16:ARG:O	6:1G:20:ILE:HG13	2.14	0.47
32:1a:376:G:H5''	47:1p:5:ARG:HD3	1.97	0.47
32:1a:688:G:O2'	32:1a:704:A:N1	2.40	0.47
32:1a:1406:U:O2	32:1a:1517:G:N2	2.48	0.47
35:1d:196:LEU:O	35:1d:198:VAL:N	2.47	0.47
43:1l:89:ARG:HA	43:1l:97:ARG:HA	1.96	0.47
1:2A:732:C:OP2	61:2A:3785:HOH:O	2.21	0.47
1:2A:2405:G:O2'	1:2A:2406:U:OP1	2.28	0.47
1:2A:2748:A:O2'	7:2H:63:SER:O	2.24	0.47
3:2D:36:PRO:HA	3:2D:61:LEU:HD12	1.96	0.47
8:2l:5:LEU:H	8:2l:5:LEU:HD12	1.78	0.47
9:2N:58:ASP:N	9:2N:58:ASP:OD1	2.48	0.47
32:2a:5:U:H5''	32:2a:6:G:C5	2.50	0.47
32:2a:73:G:H1	32:2a:96:U:H3	1.62	0.47
32:2a:558:G:OP1	61:2a:3219:HOH:O	2.20	0.47
34:2c:55:VAL:HG12	34:2c:57:ILE:HG13	1.97	0.47
34:2c:131:ARG:HH21	36:2e:50:GLU:HG3	1.78	0.47
40:2i:3:GLN:HE21	40:2i:20:ARG:HH21	1.63	0.47
1:1A:911:A:H2'	12:1Q:9:TYR:OH	2.14	0.47
1:1A:1054:A:H61	1:1A:1105:U:H3	1.62	0.47
1:1A:1173:G:C2	1:1A:1175:U:H4'	2.49	0.47
1:1A:1406:U:H2'	1:1A:1407:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2023:G:H4'	1:1A:2617:C:O3'	2.14	0.47
1:1A:2273:A:H2'	1:1A:2274:A:C8	2.50	0.47
12:1Q:103:MET:HE1	12:1Q:125:LEU:HD13	1.95	0.47
12:1Q:108:GLY:HA3	21:1Z:116:VAL:HG13	1.97	0.47
19:1X:12:VAL:HG22	19:1X:29:TRP:CE2	2.50	0.47
21:1Z:80:ARG:H	21:1Z:80:ARG:HD2	1.80	0.47
32:1a:601:C:H2'	32:1a:602:A:C8	2.50	0.47
32:1a:1513:A:H2'	32:1a:1514:C:C6	2.50	0.47
37:1f:78:GLU:O	37:1f:81:ILE:HG22	2.14	0.47
39:1h:6:ILE:HB	39:1h:85:ARG:NH1	2.29	0.47
50:1s:80:TYR:CZ	50:1s:82:GLY:HA2	2.50	0.47
51:1t:14:LYS:HG2	51:1t:18:GLN:NE2	2.27	0.47
1:2A:196:A:N3	1:2A:196:A:H2'	2.30	0.47
1:2A:910:A:C5	12:2Q:13:GLN:HG3	2.49	0.47
1:2A:1068:G:H3'	1:2A:1096:A:OP2	2.14	0.47
1:2A:1187:G:H5'	17:2V:81:TYR:CE1	2.49	0.47
1:2A:1325:G:OP1	1:2A:1647:G:O2'	2.31	0.47
1:2A:1665:A:H2'	1:2A:1666:G:O4'	2.15	0.47
1:2A:1796:U:H2'	1:2A:1797:C:H6	1.78	0.47
1:2A:1798:U:H5'	3:2D:259:THR:CG2	2.41	0.47
1:2A:1843:C:H5'	3:2D:253:GLN:NE2	2.30	0.47
1:2A:1889:A:H2'	1:2A:1890:A:C8	2.50	0.47
1:2A:2119:A:C2	1:2A:2170:A:H2'	2.49	0.47
18:2W:82:LEU:HD22	18:2W:84:ARG:NH2	2.30	0.47
27:25:20:ARG:HG2	27:25:23:HIS:CE1	2.49	0.47
31:29:29:ASN:HD22	31:29:32:HIS:CE1	2.33	0.47
32:2a:195:A:OP1	51:2t:68:LYS:NZ	2.47	0.47
32:2a:743:U:H2'	32:2a:744:C:C6	2.50	0.47
39:2h:25:ASP:OD1	39:2h:60:ARG:HG3	2.15	0.47
41:2j:81:THR:O	41:2j:85:LEU:HG	2.15	0.47
44:2m:20:THR:HA	44:2m:25:ILE:O	2.15	0.47
46:2o:5:LYS:O	46:2o:9:GLN:HG2	2.15	0.47
47:2p:60:LEU:C	47:2p:62:VAL:H	2.22	0.47
49:2r:59:SER:OG	49:2r:62:GLU:HG2	2.14	0.47
1:1A:375:C:H2'	1:1A:376:C:C6	2.50	0.47
1:1A:1079:C:C4	1:1A:1088:A:C2	3.03	0.47
1:1A:2125:G:H22	1:1A:2172:U:H5''	1.79	0.47
15:1T:53:ARG:O	15:1T:59:THR:HA	2.15	0.47
25:13:8:LEU:HD23	25:13:54:VAL:HG23	1.96	0.47
49:1r:71:LYS:O	49:1r:75:ILE:HG13	2.15	0.47
1:2A:1847:A:H3'	1:2A:1848:A:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:2A:3673:MPD:HM2	61:2A:4951:HOH:O	2.15	0.47
2:2B:24:G:O2'	2:2B:56:G:N7	2.40	0.47
5:2F:129:PHE:CD2	5:2F:163:VAL:HG21	2.50	0.47
11:2P:19:VAL:HG12	11:2P:27:HIS:HB3	1.96	0.47
15:2T:15:VAL:HG13	15:2T:79:HIS:HE1	1.79	0.47
17:2V:24:LYS:HG3	17:2V:64:HIS:HD2	1.79	0.47
21:2Z:3:TYR:CD2	21:2Z:51:ALA:HB2	2.50	0.47
32:2a:977:A:HO2'	32:2a:981:U:H3	1.63	0.47
35:2d:122:ARG:NH1	35:2d:134:ASP:OD2	2.48	0.47
53:2y:7:SER:HB3	53:2y:10:MET:O	2.15	0.47
1:1A:675:A:C8	1:1A:804:A:C6	3.03	0.47
1:1A:2162:G:HO2'	1:1A:2173:A:H8	1.62	0.47
1:1A:2336:A:H61	22:10:43:THR:HG21	1.80	0.47
1:1A:2552:OMU:O5'	1:1A:2552:OMU:H6	2.15	0.47
4:1E:55:ASN:HB3	4:1E:58:ARG:HG3	1.97	0.47
6:1G:3:LEU:HD13	26:14:25:TYR:CZ	2.50	0.47
12:1Q:101:ARG:HD2	61:1Q:326:HOH:O	2.15	0.47
32:1a:626:U:H2'	32:1a:627:G:H8	1.80	0.47
32:1a:814:A:H2'	32:1a:816:A:H5''	1.97	0.47
32:1a:977:A:H1'	32:1a:982:U:O4	2.15	0.47
32:1a:1183:A:H3'	32:1a:1184:G:C5'	2.44	0.47
32:1a:1368:G:OP2	40:1i:112:LYS:HG3	2.15	0.47
33:1b:74:LYS:HE3	33:1b:166:ASP:HB2	1.97	0.47
37:1f:11:ASN:HB3	37:1f:14:LEU:HG	1.97	0.47
43:1l:28:LYS:HA	43:1l:28:LYS:HE2	1.96	0.47
43:1l:79:GLU:HG2	43:1l:80:HIS:ND1	2.30	0.47
46:1o:17:ARG:NH2	61:1o:201:HOH:O	2.45	0.47
51:1t:43:LEU:O	51:1t:47:GLY:N	2.48	0.47
1:2A:631:A:H1'	11:2P:66:GLY:HA2	1.96	0.47
1:2A:1225:G:H4'	17:2V:84:LYS:HG2	1.97	0.47
1:2A:2185:C:N4	1:2A:2186:G:O6	2.48	0.47
7:2H:109:PHE:C	7:2H:111:HIS:H	2.22	0.47
24:22:35:LEU:HD22	24:22:44:LEU:HD11	1.97	0.47
32:2a:407:G:H5''	35:2d:115:ARG:HB3	1.96	0.47
32:2a:1342:C:H2'	32:2a:1343:G:C8	2.50	0.47
33:2b:46:LYS:O	33:2b:50:GLU:HG2	2.14	0.47
1:1A:657:U:H2'	1:1A:658:C:C6	2.49	0.47
1:1A:2345:G:H4'	1:1A:2346:A:H5''	1.96	0.47
1:1A:2698:U:H2'	1:1A:2699:C:C6	2.50	0.47
6:1G:22:ARG:HH22	6:1G:175:LEU:HD21	1.80	0.47
32:1a:473:G:H2'	32:1a:474:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:591:U:H2'	32:1a:592:G:H8	1.79	0.47
32:1a:1458:G:OP1	51:1t:35:THR:OG1	2.22	0.47
40:1i:3:GLN:HG3	40:1i:20:ARG:HG2	1.97	0.47
48:1q:62:SER:HB3	48:1q:72:ARG:HH11	1.80	0.47
49:1r:28:GLU:H	49:1r:28:GLU:HG2	1.43	0.47
53:1y:52:ALA:HB2	53:1y:77:LEU:HD21	1.96	0.47
53:1y:71:TYR:HA	53:1y:74:ILE:HD12	1.97	0.47
1:2A:140:G:N2	1:2A:1596:A:H4'	2.30	0.47
1:2A:483:A:H5''	20:2Y:50:ARG:HG2	1.97	0.47
1:2A:1057:A:N6	1:2A:1086:A:N3	2.63	0.47
1:2A:1688:U:O2	1:2A:1700:A:H5'	2.14	0.47
1:2A:2823:A:OP1	4:2E:159:HIS:NE2	2.39	0.47
3:2D:70:TRP:CE2	3:2D:150:LYS:HD3	2.50	0.47
8:2I:52:ARG:HE	8:2I:52:ARG:HB2	1.36	0.47
22:20:68:GLU:HG3	22:20:82:ARG:HG3	1.96	0.47
32:2a:256:U:OP1	48:2q:17:LYS:NZ	2.46	0.47
32:2a:1001:A:H2'	32:2a:1001(A):G:H8	1.80	0.47
34:2c:180:ALA:HB1	34:2c:203:PHE:CE1	2.50	0.47
39:2h:37:ARG:HH12	39:2h:41:ARG:HH21	1.63	0.47
40:2i:31:GLN:NE2	40:2i:35:GLU:OE2	2.48	0.47
53:2y:52:ALA:HB2	53:2y:77:LEU:HD21	1.96	0.47
1:1A:2102:U:O2	1:1A:2187:G:C6	2.65	0.46
1:1A:2469:A:H5'	1:1A:2470:G:OP2	2.14	0.46
17:1V:34:GLU:HA	17:1V:57:VAL:O	2.14	0.46
28:16:11:LEU:HB2	28:16:21:TYR:HB2	1.97	0.46
32:1a:578:C:O2'	32:1a:728:A:N3	2.39	0.46
32:1a:601:C:H2'	32:1a:602:A:H8	1.79	0.46
32:1a:773:G:OP1	61:1a:1919:HOH:O	2.20	0.46
39:1h:12:ARG:NH1	39:1h:25:ASP:O	2.48	0.46
46:1o:33:THR:HG21	46:1o:85:LEU:HD22	1.97	0.46
1:2A:1665:A:H4'	10:2O:67:LYS:HB2	1.97	0.46
2:2B:31:C:H4'	6:2G:29:TRP:CZ2	2.50	0.46
5:2F:25:PRO:HD2	5:2F:115:ALA:HB2	1.97	0.46
6:2G:82:LEU:HA	6:2G:86:MET:SD	2.55	0.46
6:2G:116:ASP:OD1	6:2G:116:ASP:N	2.48	0.46
21:2Z:52:SER:C	21:2Z:54:HIS:H	2.22	0.46
32:2a:103:C:O2'	32:2a:172:A:N1	2.46	0.46
34:2c:123:GLN:HE22	34:2c:136:GLN:NE2	2.13	0.46
40:2i:3:GLN:NE2	40:2i:20:ARG:HH21	2.13	0.46
1:1A:548:A:N6	17:1V:19:LYS:H	2.12	0.46
1:1A:1045:A:O2'	1:1A:1047:G:C4	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1919:A:N1	32:1a:1495:U:O2'	2.42	0.46
1:1A:2251:OMG:HM23	1:1A:2251:OMG:H1'	1.71	0.46
1:1A:2791:C:OP2	1:1A:2791:C:H6	1.97	0.46
4:1E:70:ALA:O	4:1E:72:VAL:HB	2.15	0.46
5:1F:167:ALA:HB1	5:1F:173:VAL:HG11	1.97	0.46
32:1a:1404:5MC:O2	32:1a:1519:MA6:O2'	2.26	0.46
1:2A:1530:C:O2'	1:2A:1531:C:O5'	2.31	0.46
1:2A:1593:G:H2'	1:2A:1594:G:H8	1.79	0.46
8:2I:130:TYR:HB3	8:2I:138:ILE:HB	1.97	0.46
25:23:8:LEU:HG	25:23:31:LEU:HD22	1.97	0.46
32:2a:328:C:H4'	32:2a:329:A:H5'	1.98	0.46
32:2a:396:G:O2'	32:2a:398:C:OP1	2.16	0.46
32:2a:1235:U:O2'	32:2a:1305:G:O5'	2.33	0.46
32:2a:1326:C:H2'	32:2a:1327:C:C6	2.51	0.46
34:2c:98:ASN:O	34:2c:100:ALA:N	2.49	0.46
35:2d:99:SER:O	35:2d:140:VAL:HG23	2.15	0.46
1:1A:644:A:H4'	1:1A:645:C:H5	1.80	0.46
6:1G:150:ASP:CG	6:1G:151:ALA:H	2.23	0.46
10:1O:115:VAL:O	57:1a:1882:MPD:H13	2.15	0.46
12:1Q:3:MET:HE2	61:1Q:330:HOH:O	2.16	0.46
27:15:16:ARG:HG3	27:15:17:ASP:N	2.30	0.46
32:1a:264:U:O2'	48:1q:64:PRO:O	2.31	0.46
32:1a:1347:G:H22	32:1a:1374:A:P	2.38	0.46
33:1b:16:HIS:HB3	33:1b:210:SER:HB2	1.98	0.46
36:1e:45:PHE:CD2	36:1e:47:LYS:HE2	2.50	0.46
1:2A:1791:A:H5'	3:2D:206:LEU:HD12	1.96	0.46
1:2A:2186:G:N1	1:2A:2187:G:C5	2.84	0.46
1:2A:2506:U:O2	55:2A:3671:HGR:H23	2.16	0.46
3:2D:106:ILE:HD11	3:2D:143:HIS:HD2	1.79	0.46
6:2G:16:ARG:O	6:2G:20:ILE:HG13	2.15	0.46
8:2I:57:ARG:O	8:2I:61:ARG:HG2	2.15	0.46
20:2Y:97:ARG:HB2	20:2Y:106:LEU:HB2	1.96	0.46
32:2a:762:C:H2'	32:2a:763:G:H8	1.80	0.46
33:2b:31:TYR:HE2	33:2b:200:ILE:HG21	1.79	0.46
1:1A:305:U:H2'	1:1A:306:U:C6	2.51	0.46
6:1G:77:ILE:HG21	6:1G:80:PHE:CD2	2.50	0.46
32:1a:7:G:H21	36:1e:121:LYS:HG2	1.80	0.46
33:1b:21:ARG:C	33:1b:23:ARG:H	2.24	0.46
44:1m:87:TYR:O	44:1m:91:ARG:HG2	2.15	0.46
1:2A:251:A:C5	1:2A:252:G:H1'	2.50	0.46
1:2A:904:C:H2'	1:2A:905:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2131:G:H5'	1:2A:2133:G:O4'	2.15	0.46
1:2A:2472:G:N1	1:2A:2477:C:OP1	2.33	0.46
11:2P:2:LYS:NZ	11:2P:4:SER:OG	2.28	0.46
32:2a:55:A:OP2	32:2a:352:C:N4	2.46	0.46
32:2a:148:G:H2'	32:2a:149:A:H8	1.80	0.46
32:2a:1305:G:H22	32:2a:1331:G:H1'	1.79	0.46
38:2g:76:ARG:HH21	38:2g:95:ARG:CZ	2.29	0.46
44:2m:108:ARG:CZ	44:2m:114:ARG:HA	2.46	0.46
53:2y:3:MET:HE3	53:2y:5:ILE:HG12	1.97	0.46
1:1A:621:A:OP2	11:1P:108:LYS:NZ	2.45	0.46
1:1A:651:G:OP1	30:18:17:THR:OG1	2.32	0.46
1:1A:1062:G:H2'	1:1A:1063:G:H8	1.80	0.46
1:1A:1439:A:OP1	61:1A:4161:HOH:O	2.20	0.46
1:1A:1641:A:H2'	1:1A:1642:G:O4'	2.15	0.46
1:1A:2867:G:OP2	15:1T:119:LYS:NZ	2.27	0.46
4:1E:119:ARG:HG2	4:1E:160:TYR:CG	2.49	0.46
9:1N:4:TYR:CD2	16:1U:100:VAL:HG11	2.51	0.46
32:1a:814:A:N7	32:1a:816:A:C4	2.83	0.46
32:1a:932:C:H4'	38:1g:4:ARG:NH2	2.30	0.46
32:1a:1149:C:H2'	32:1a:1150:U:C6	2.50	0.46
33:1b:97:TRP:HH2	33:1b:176:GLU:CD	2.23	0.46
44:1m:17:VAL:O	44:1m:20:THR:OG1	2.29	0.46
1:2A:479:A:N3	1:2A:481:G:H5''	2.31	0.46
1:2A:557:U:H2'	1:2A:558:G:C8	2.50	0.46
1:2A:985:C:H2'	1:2A:986:C:H6	1.80	0.46
1:2A:1063:G:H1	1:2A:1075:C:H42	1.63	0.46
1:2A:1065:U:H4'	1:2A:1066:U:OP1	2.12	0.46
1:2A:2136:C:H2'	1:2A:2137:C:C6	2.50	0.46
1:2A:2155:G:H2'	1:2A:2156:G:O4'	2.15	0.46
61:2B:309:HOH:O	21:2Z:31:ARG:N	2.48	0.46
5:2F:102:PRO:HB2	5:2F:105:VAL:HG23	1.98	0.46
9:2N:108:PRO:O	9:2N:113:GLY:HA3	2.16	0.46
32:2a:1184:G:H2'	32:2a:1185:G:H8	1.81	0.46
32:2a:1323:G:H4'	32:2a:1363:C:C2	2.51	0.46
44:2m:15:VAL:HG21	44:2m:48:LEU:HD21	1.97	0.46
1:1A:1270:C:H5''	1:1A:1271:G:O5'	2.15	0.46
1:1A:1644:C:H6	1:1A:1644:C:H5''	1.79	0.46
7:1H:89:ILE:HD11	7:1H:96:ALA:HB2	1.96	0.46
57:1T:205:MPD:H13	32:1a:348:G:OP2	2.15	0.46
30:18:23:VAL:CG1	30:18:47:LYS:HD3	2.45	0.46
32:1a:328:C:H4'	32:1a:329:A:H5''	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:674:G:H2'	32:1a:675:A:H8	1.78	0.46
32:1a:1273:G:H3'	32:1a:1274:G:H8	1.81	0.46
33:1b:15:VAL:HG11	33:1b:213:LEU:HD13	1.98	0.46
50:1s:50:ALA:HA	50:1s:58:VAL:O	2.16	0.46
1:2A:1403:C:OP1	1:2A:1520:G:N2	2.38	0.46
1:2A:1633:G:OP2	61:2A:3786:HOH:O	2.21	0.46
4:2E:108:SER:O	4:2E:162:ALA:HA	2.16	0.46
5:2F:74:ARG:HD2	61:2F:418:HOH:O	2.15	0.46
6:2G:8:LYS:NZ	6:2G:97:ASP:OD1	2.44	0.46
19:2X:60:ARG:NH1	29:27:47:ARG:HH12	2.13	0.46
24:22:32:LEU:HD11	24:22:54:LYS:HG2	1.98	0.46
32:2a:189(F):U:C4	48:2q:72:ARG:NH1	2.83	0.46
32:2a:519:C:OP2	43:2l:50:SER:OG	2.34	0.46
32:2a:1277:C:O2'	32:2a:1279:A:C8	2.68	0.46
44:2m:92:HIS:CE1	44:2m:98:VAL:HG21	2.50	0.46
49:2r:53:ARG:NH1	49:2r:60:ALA:HB2	2.31	0.46
1:1A:272(B):G:H2'	1:1A:272(C):G:C8	2.50	0.46
1:1A:272(J):C:H2'	1:1A:274:G:C8	2.50	0.46
1:1A:616:G:H5'	5:1F:205:ARG:HD3	1.96	0.46
1:1A:1507:A:C2	1:1A:1508:A:H1'	2.51	0.46
1:1A:2119:A:H2	1:1A:2171:A:H5'	1.81	0.46
4:1E:119:ARG:HG3	4:1E:160:TYR:HB2	1.98	0.46
6:1G:66:GLN:HG3	26:14:1:MET:HE1	1.97	0.46
23:11:82:LEU:O	23:11:85:LEU:HG	2.16	0.46
32:1a:955:U:O2'	50:1s:83:HIS:HD2	1.98	0.46
32:1a:1284:C:H3'	32:1a:1285:A:C8	2.51	0.46
37:1f:25:ILE:HG21	37:1f:82:ARG:HD3	1.97	0.46
53:1y:38:HIS:O	53:1y:52:ALA:HA	2.16	0.46
1:2A:228:A:H8	1:2A:229:A:H5'	1.81	0.46
1:2A:568:U:H5'	1:2A:945:A:H62	1.81	0.46
1:2A:1035:U:H2'	1:2A:1036:G:H8	1.81	0.46
1:2A:1877:A:H5'	1:2A:1878:G:OP2	2.15	0.46
1:2A:2047:U:O2'	1:2A:2823:A:N1	2.36	0.46
1:2A:2184:G:H2'	1:2A:2185:C:O4'	2.15	0.46
3:2D:218:ARG:HB3	3:2D:219:PRO:HD2	1.98	0.46
7:2H:101:ARG:HG2	7:2H:117:PRO:HG2	1.96	0.46
15:2T:28:VAL:HG13	15:2T:86:ILE:HG23	1.98	0.46
26:24:50:VAL:HB	44:2m:65:LYS:HB3	1.96	0.46
26:24:57:GLU:HA	26:24:58:ARG:HA	1.41	0.46
32:2a:266:G:O2'	32:2a:267:C:OP2	2.30	0.46
32:2a:409:G:H2'	32:2a:410:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:598:U:H2'	32:2a:599:C:C6	2.51	0.46
32:2a:656:C:H2'	32:2a:657:G:O4'	2.16	0.46
32:2a:750:G:N3	46:2o:23:GLY:HA3	2.30	0.46
32:2a:999:C:H2'	32:2a:1000:U:C6	2.50	0.46
42:2k:115:PRO:C	42:2k:117:ASN:HA	2.41	0.46
1:1A:185:U:H2'	1:1A:186:G:C8	2.51	0.46
1:1A:303:U:O4	61:1A:4160:HOH:O	2.20	0.46
1:1A:743:G:OP1	4:1E:130:GLY:HA2	2.15	0.46
1:1A:2681:C:OP2	4:1E:109:LYS:NZ	2.43	0.46
32:1a:185:A:H2'	32:1a:186:C:C6	2.51	0.46
41:1j:44:VAL:HG22	41:1j:66:ARG:HD2	1.98	0.46
45:1n:3:ARG:NH2	45:1n:27:CYS:O	2.48	0.46
1:2A:275:G:H2'	1:2A:276:A:C8	2.51	0.46
1:2A:1782:C:H1'	1:2A:2609:U:H5''	1.98	0.46
16:2U:65:ILE:HD11	16:2U:95:LEU:HB2	1.98	0.46
32:2a:474:G:H2'	32:2a:475:G:C8	2.50	0.46
32:2a:984:C:H2'	32:2a:985:C:C6	2.50	0.46
32:2a:1015:A:H1'	32:2a:1219:U:H5'	1.98	0.46
32:2a:1516:G:N2	32:2a:1519:MA6:OP2	2.48	0.46
36:2e:81:GLU:HG2	36:2e:90:VAL:HG13	1.98	0.46
42:2k:116:HIS:N	42:2k:117:ASN:HA	2.31	0.46
1:1A:813:U:H2'	1:1A:814:C:C6	2.51	0.46
1:1A:1040:C:H2'	1:1A:1041:C:O4'	2.16	0.46
1:1A:1165:U:H2'	1:1A:1166:C:C6	2.51	0.46
1:1A:1744:C:H2'	1:1A:1745:C:C6	2.51	0.46
1:1A:1786:A:H1'	1:1A:1938:A:N6	2.31	0.46
1:1A:1800:C:OP1	3:1D:260:ARG:NH2	2.49	0.46
1:1A:1803:A:H4'	3:1D:259:THR:HG23	1.98	0.46
1:1A:2637:U:OP1	4:1E:82:ARG:NH1	2.46	0.46
4:1E:36:ARG:NH1	4:1E:85:ASN:OD1	2.45	0.46
32:1a:946:A:H2'	32:1a:947:G:H8	1.75	0.46
32:1a:957:U:OP1	50:1s:81:ARG:NH1	2.48	0.46
32:1a:1469:G:H2'	32:1a:1470:G:H8	1.81	0.46
40:1i:9:ARG:O	40:1i:104:ARG:HG3	2.16	0.46
47:1p:19:ILE:HG22	47:1p:37:GLY:O	2.15	0.46
51:1t:57:ARG:HH22	51:1t:100:ILE:HD12	1.80	0.46
1:2A:171:G:H2'	1:2A:172:C:H6	1.81	0.46
1:2A:191:A:H2'	1:2A:192:C:C6	2.51	0.46
1:2A:297:C:OP1	20:2Y:87:LYS:HG3	2.16	0.46
1:2A:1102:C:H2'	1:2A:1103:A:H8	1.80	0.46
1:2A:1288:U:C2	1:2A:1327:C:O2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2163:C:H5''	1:2A:2164:C:OP2	2.16	0.46
3:2D:26:LYS:NZ	3:2D:28:GLU:O	2.42	0.46
4:2E:101:ARG:CZ	4:2E:171:GLU:HB2	2.46	0.46
25:23:3:ARG:HG2	25:23:38:GLU:HA	1.98	0.46
32:2a:393:A:OP2	47:2p:12:LYS:NZ	2.33	0.46
33:2b:74:LYS:O	33:2b:78:GLN:N	2.49	0.46
33:2b:118:LEU:HD23	33:2b:118:LEU:HA	1.79	0.46
1:1A:1814:G:H4'	3:1D:51:VAL:HG21	1.98	0.46
1:1A:2038:G:H2'	1:1A:2039:C:O4'	2.16	0.46
1:1A:2147:G:H2'	1:1A:2148:G:C4'	2.46	0.46
11:1P:65:ARG:HB2	61:1P:351:HOH:O	2.17	0.46
18:1W:1:MET:HE2	18:1W:62:HIS:HB3	1.97	0.46
32:1a:169:C:H2'	32:1a:170:U:H6	1.81	0.46
32:1a:951:G:OP2	44:1m:102:ARG:NH1	2.47	0.46
32:1a:1226:C:H4'	32:1a:1227:A:OP1	2.15	0.46
33:1b:59:GLU:HB2	33:1b:221:LEU:HD21	1.96	0.46
51:1t:63:ILE:HG21	51:1t:81:LYS:HG3	1.97	0.46
1:2A:271(P):C:O3'	8:2I:42:SER:OG	2.22	0.46
1:2A:1580:A:H8	1:2A:1580:A:OP2	1.99	0.46
1:2A:2419:U:OP1	61:2A:3788:HOH:O	2.21	0.46
5:2F:107:LYS:HG3	5:2F:206:ILE:HA	1.98	0.46
6:2G:106:LEU:HA	6:2G:110:ALA:HB3	1.98	0.46
7:2H:154:PRO:HB3	7:2H:163:TYR:CE1	2.51	0.46
15:2T:114:LEU:HD23	15:2T:114:LEU:HA	1.78	0.46
19:2X:60:ARG:HH12	29:27:47:ARG:HH12	1.61	0.46
32:2a:457:C:H2'	32:2a:458:C:C6	2.50	0.46
32:2a:576:G:O6	32:2a:880:C:O2'	2.25	0.46
32:2a:841:U:OP1	32:2a:841:U:H6	1.99	0.46
32:2a:1157:A:H4'	32:2a:1158:C:O5'	2.16	0.46
33:2b:54:THR:HG23	33:2b:199:TYR:HB3	1.98	0.46
34:2c:164:ARG:NH1	34:2c:166:GLU:OE1	2.49	0.46
36:2e:71:LEU:HD11	36:2e:113:ALA:O	2.16	0.46
1:1A:821:A:H2'	1:1A:946:G:H5''	1.98	0.45
1:1A:1175:U:H1'	1:1A:1176:G:OP1	2.16	0.45
1:1A:1179:C:H2'	1:1A:1180:C:C6	2.51	0.45
1:1A:1199:U:H5'	61:1A:4965:HOH:O	2.17	0.45
1:1A:1292:U:H2'	1:1A:1293:C:C6	2.52	0.45
1:1A:2223:G:OP1	3:1D:172:TYR:OH	2.21	0.45
1:1A:2537:U:H2'	1:1A:2538:C:C6	2.51	0.45
2:1B:77:U:OP1	21:1Z:19:ARG:NH2	2.48	0.45
3:1D:16:MET:HG3	3:1D:211:ARG:HH21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1296:C:OP1	44:1m:44:ARG:NH2	2.47	0.45
33:1b:21:ARG:O	33:1b:23:ARG:N	2.50	0.45
33:1b:100:GLY:O	33:1b:108:ILE:HD13	2.16	0.45
37:1f:69:GLU:H	37:1f:69:GLU:CD	2.22	0.45
49:1r:53:ARG:HH21	49:1r:59:SER:HA	1.79	0.45
1:2A:1301:A:C8	1:2A:1303:G:C8	3.04	0.45
1:2A:2153:G:H2'	1:2A:2154:G:H8	1.81	0.45
3:2D:232:PRO:HB3	3:2D:244:ARG:CZ	2.46	0.45
4:2E:13:ARG:HD2	4:2E:20:ALA:HB1	1.97	0.45
14:2S:24:LEU:HD22	14:2S:41:ASP:HB2	1.97	0.45
17:2V:52:VAL:HG23	17:2V:55:ALA:HB3	1.97	0.45
18:2W:83:LYS:O	18:2W:84:ARG:HD3	2.16	0.45
34:2c:21:ARG:NH1	34:2c:58:GLU:HG2	2.30	0.45
38:2g:113:GLU:H	38:2g:113:GLU:HG2	1.30	0.45
50:2s:48:THR:HG23	50:2s:61:TYR:HD1	1.80	0.45
1:1A:67:U:O4	61:1A:4165:HOH:O	2.21	0.45
1:1A:644:A:H4'	1:1A:645:C:C5	2.52	0.45
3:1D:164:GLN:OE1	3:1D:176:ARG:NH2	2.49	0.45
6:1G:50:ALA:O	6:1G:52:ILE:N	2.41	0.45
19:1X:31:HIS:CD2	19:1X:33:LYS:H	2.34	0.45
32:1a:44:G:H2'	32:1a:45:U:O4'	2.16	0.45
32:1a:447:G:O6	32:1a:485:G:O2'	2.28	0.45
32:1a:707:C:H5''	42:1k:85:ARG:HH12	1.82	0.45
32:1a:1237:C:O2'	32:1a:1300:G:N1	2.44	0.45
35:1d:57:ARG:NH2	36:1e:107:ARG:HH11	2.14	0.45
39:1h:97:VAL:HG21	39:1h:128:GLY:HA2	1.97	0.45
1:2A:616:G:H5'	5:2F:205:ARG:HD3	1.98	0.45
1:2A:724:U:H2'	1:2A:725:G:O4'	2.17	0.45
1:2A:1243:G:H2'	1:2A:1244:G:O4'	2.16	0.45
1:2A:2280:G:O2'	1:2A:2388:A:N1	2.47	0.45
1:2A:2661:G:H2'	1:2A:2662:A:C8	2.50	0.45
1:2A:2679:A:H4'	4:2E:165:VAL:HG11	1.98	0.45
12:2Q:38:GLU:HG3	12:2Q:127:ILE:HG22	1.98	0.45
21:2Z:128:VAL:HG23	21:2Z:160:GLY:O	2.16	0.45
32:2a:1220:G:N3	50:2s:54:GLY:HA2	2.31	0.45
33:2b:97:TRP:HH2	33:2b:176:GLU:HB2	1.82	0.45
33:2b:98:LEU:HD23	33:2b:98:LEU:HA	1.78	0.45
35:2d:15:GLU:HB3	35:2d:63:LYS:HG2	1.97	0.45
35:2d:61:LYS:NZ	35:2d:72:GLU:OE1	2.49	0.45
43:2l:41:ARG:HG2	43:2l:42:THR:N	2.31	0.45
1:1A:1003:G:O2'	1:1A:1010:A:N1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:1175:U:H3'	1:1A:1177:A:OP2	2.15	0.45
1:1A:2543:G:H21	1:1A:2646:C:H5''	1.81	0.45
1:1A:2687:U:H2'	1:1A:2688:U:O4'	2.15	0.45
5:1F:148:LEU:HD22	5:1F:154:VAL:HG21	1.98	0.45
32:1a:162:A:H3'	32:1a:163:C:C4'	2.43	0.45
32:1a:442:C:H42	32:1a:492:G:H1	1.64	0.45
32:1a:689:C:H2'	32:1a:690:G:O4'	2.16	0.45
32:1a:708:C:H2'	32:1a:709:G:H8	1.81	0.45
32:1a:1277:C:H1'	32:1a:1282:C:O2	2.17	0.45
32:1a:1284:C:H3'	32:1a:1285:A:H8	1.82	0.45
32:1a:1525:G:P	42:1k:120:ARG:HH22	2.39	0.45
35:1d:79:PHE:HE1	35:1d:204:ILE:HD13	1.81	0.45
44:1m:4:ILE:HA	44:1m:5:ALA:HA	1.56	0.45
1:2A:411:G:C5	11:2P:72:PRO:HB3	2.51	0.45
1:2A:1464:C:H2'	1:2A:1465:G:C8	2.51	0.45
1:2A:1702:G:H2'	1:2A:1703:G:O4'	2.16	0.45
1:2A:2327:A:H2'	1:2A:2328:A:C8	2.52	0.45
6:2G:107:LEU:HD21	6:2G:178:PHE:CE1	2.51	0.45
12:2Q:21:THR:HG21	12:2Q:101:ARG:HG3	1.98	0.45
21:2Z:145:GLU:O	21:2Z:174:VAL:HB	2.16	0.45
32:2a:502:G:H2'	32:2a:503:C:O4'	2.16	0.45
32:2a:1090:U:H2'	32:2a:1091:U:C6	2.50	0.45
44:2m:5:ALA:HB2	44:2m:61:GLU:HG2	1.99	0.45
50:2s:17:GLU:O	50:2s:21:GLU:N	2.37	0.45
50:2s:22:LEU:HB3	50:2s:27:GLU:HA	1.97	0.45
50:2s:43:GLU:N	50:2s:43:GLU:OE1	2.50	0.45
1:1A:1996:C:H4'	1:1A:1997:G:OP1	2.16	0.45
1:1A:2749:A:OP1	7:1H:3:ARG:NH1	2.50	0.45
1:1A:2803:C:H2'	1:1A:2804:C:C6	2.51	0.45
29:17:24:THR:HG23	29:17:27:GLY:N	2.31	0.45
30:18:56:GLU:HG2	61:18:222:HOH:O	2.16	0.45
32:1a:769:G:H4'	32:1a:1513:A:H4'	1.99	0.45
32:1a:840:C:H4'	32:1a:841:U:OP1	2.16	0.45
32:1a:1315:U:H2'	32:1a:1316:G:O4'	2.15	0.45
43:1l:102:ARG:NE	43:1l:108:ALA:O	2.40	0.45
1:2A:673:C:H5''	5:2F:81:PRO:HD2	1.98	0.45
1:2A:748:G:C8	18:2W:89:ALA:HB1	2.51	0.45
1:2A:1065:U:H3	1:2A:1073:A:H61	1.64	0.45
1:2A:1069:A:C5	1:2A:1095:A:H4'	2.52	0.45
7:2H:3:ARG:HA	7:2H:3:ARG:HD2	1.77	0.45
30:28:34:TRP:CE2	30:28:35:GLN:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1005:A:OP2	32:2a:1024:G:N2	2.49	0.45
40:2i:49:PRO:HG2	40:2i:81:ILE:HG22	1.98	0.45
47:2p:53:VAL:O	47:2p:57:ARG:HB2	2.16	0.45
1:1A:579:G:H2'	1:1A:580:C:C6	2.50	0.45
1:1A:895:U:H5'	1:1A:896:A:OP2	2.17	0.45
1:1A:2155:G:H3'	1:1A:2156:G:C8	2.52	0.45
15:1T:16:ARG:HH21	15:1T:18:ASP:CG	2.24	0.45
21:1Z:29:TYR:HA	21:1Z:33:LEU:HD12	1.97	0.45
21:1Z:52:SER:C	21:1Z:54:HIS:N	2.75	0.45
32:1a:174:C:H2'	32:1a:175:C:H6	1.81	0.45
32:1a:580:U:H2'	32:1a:581:G:O4'	2.17	0.45
34:1c:113:ALA:HB2	34:1c:202:ILE:HG13	1.99	0.45
44:1m:20:THR:C	44:1m:22:ILE:H	2.24	0.45
1:2A:566:U:H2'	1:2A:567:A:O4'	2.17	0.45
1:2A:760:G:H2'	1:2A:761:A:O4'	2.16	0.45
1:2A:1063:G:H1	1:2A:1075:C:N4	2.14	0.45
1:2A:1129:A:N6	1:2A:2491:U:OP1	2.50	0.45
1:2A:1915:5MU:H2'	1:2A:1916:A:O4'	2.17	0.45
1:2A:2028:U:H2'	1:2A:2029:G:O4'	2.16	0.45
1:2A:2312:U:O2	6:2G:42:GLY:HA3	2.16	0.45
32:2a:64:G:H4'	32:2a:65:U:H3'	1.98	0.45
32:2a:1318:A:O2'	50:2s:37:ARG:HB2	2.16	0.45
32:2a:1329:A:H5''	44:2m:26:GLY:H	1.82	0.45
33:2b:155:LEU:HD11	33:2b:159:PRO:HG3	1.97	0.45
36:2e:122:GLU:O	36:2e:126:ARG:NH1	2.49	0.45
44:2m:19:LEU:HB3	44:2m:25:ILE:HG21	1.99	0.45
49:2r:56:THR:HB	49:2r:58:LEU:HD13	1.98	0.45
1:1A:25:U:OP2	61:1A:4169:HOH:O	2.21	0.45
1:1A:264:C:O2'	1:1A:265:A:H2'	2.17	0.45
1:1A:613:G:O2'	1:1A:614(C):A:N1	2.47	0.45
1:1A:2443:C:OP1	5:1F:68:LYS:HD3	2.16	0.45
1:1A:2482:G:O6	61:1A:4154:HOH:O	2.19	0.45
3:1D:146:GLU:HG2	3:1D:152:GLY:C	2.42	0.45
4:1E:67:PHE:HE1	4:1E:78:LEU:HD21	1.81	0.45
9:1N:65:LYS:HE2	9:1N:69:GLN:NE2	2.32	0.45
15:1T:53:ARG:HB3	15:1T:53:ARG:HH11	1.81	0.45
32:1a:130:A:C8	48:1q:63:ARG:HD3	2.51	0.45
32:1a:624:C:H2'	32:1a:625:G:H8	1.80	0.45
32:1a:815:A:N7	32:1a:1509:C:O2'	2.45	0.45
32:1a:924:C:H2'	32:1a:925:G:C8	2.52	0.45
32:1a:1135:U:H4'	32:1a:1136:U:H5	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:1c:88:ARG:HA	34:1c:91:LEU:HB3	1.99	0.45
38:1g:50:ILE:HG22	38:1g:125:MET:HG3	1.98	0.45
40:1i:111:ARG:NE	40:1i:112:LYS:O	2.49	0.45
1:2A:974:G:N2	61:2A:3717:HOH:O	2.20	0.45
1:2A:1540:U:H2'	1:2A:1541:G:O4'	2.16	0.45
4:2E:67:PHE:HB3	4:2E:72:VAL:O	2.16	0.45
11:2P:63:PRO:HG2	30:28:25:MET:HB2	1.99	0.45
15:2T:24:PRO:HD3	15:2T:52:ILE:HD12	1.99	0.45
32:2a:133:U:H1'	32:2a:230:G:N2	2.32	0.45
32:2a:921:U:O2	36:2e:19:MET:HB2	2.16	0.45
32:2a:1095:U:P	32:2a:1108:G:H1	2.40	0.45
33:2b:16:HIS:CG	33:2b:210:SER:HB3	2.52	0.45
38:2g:146:GLU:OE1	38:2g:149:ARG:NE	2.50	0.45
39:2h:20:TYR:HA	39:2h:65:TYR:CZ	2.51	0.45
41:2j:20:ALA:HB1	41:2j:37:PRO:HB3	1.99	0.45
53:2y:38:HIS:HD2	53:2y:40:ILE:HD11	1.81	0.45
1:1A:580:C:H2'	1:1A:581:C:H6	1.81	0.45
1:1A:586:A:N1	1:1A:809:G:O2'	2.46	0.45
1:1A:602:G:N1	1:1A:655:A:OP2	2.40	0.45
1:1A:1810:A:H2'	1:1A:1811:G:O4'	2.16	0.45
1:1A:1932:A:H2'	1:1A:1933:G:O4'	2.17	0.45
1:1A:2820:A:C8	4:1E:109:LYS:HE2	2.52	0.45
32:1a:437:U:O2'	35:1d:123:HIS:HD2	2.00	0.45
33:1b:82:ARG:HG3	33:1b:92:TYR:CZ	2.52	0.45
35:1d:124:GLY:C	35:1d:126:ILE:H	2.24	0.45
1:2A:1420:U:O2'	1:2A:1421:G:OP1	2.33	0.45
1:2A:1614:A:C2	18:2W:93:ALA:HB2	2.52	0.45
5:2F:33:LEU:HD12	5:2F:33:LEU:HA	1.84	0.45
12:2Q:7:MET:HE3	12:2Q:7:MET:HB2	1.78	0.45
31:29:15:LYS:HD3	31:29:26:ILE:HD11	1.99	0.45
32:2a:56:U:H2'	32:2a:57:G:C8	2.51	0.45
32:2a:335:C:O2'	32:2a:1433:A:N3	2.44	0.45
32:2a:625:G:H4'	47:2p:16:HIS:CD2	2.52	0.45
32:2a:1016:A:N6	32:2a:1017:G:N3	2.65	0.45
32:2a:1391:U:H2'	32:2a:1392:G:C8	2.52	0.45
34:2c:5:ILE:HG12	34:2c:6:HIS:N	2.31	0.45
40:2i:65:VAL:HG21	40:2i:73:GLN:HB3	1.97	0.45
45:2n:24:CYS:O	45:2n:28:GLY:N	2.49	0.45
1:1A:1007:C:OP2	61:1A:4162:HOH:O	2.21	0.45
1:1A:1071:G:O2'	1:1A:1089:G:H2'	2.16	0.45
1:1A:2147:G:H2'	1:1A:2148:G:H4'	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2693:A:H2'	1:1A:2694:G:C8	2.52	0.45
8:1I:109:ILE:HA	8:1I:109:ILE:HD12	1.82	0.45
11:1P:100:LEU:HD12	11:1P:112:LEU:HD21	1.98	0.45
32:1a:186:C:H5'	51:1t:78:ALA:HB1	1.97	0.45
32:1a:392:G:H2'	32:1a:393:A:C8	2.52	0.45
32:1a:690:G:C6	32:1a:691:G:C6	3.05	0.45
32:1a:737:A:H5'	37:1f:90:VAL:O	2.16	0.45
32:1a:926:G:C6	53:1y:87:LYS:HG3	2.51	0.45
32:1a:1194:U:H4'	36:1e:22:GLY:O	2.17	0.45
34:1c:32:LEU:HD22	34:1c:59:ARG:HD3	1.99	0.45
50:1s:11:VAL:HG11	50:1s:16:LEU:HB2	1.98	0.45
1:2A:263:C:H2'	1:2A:264:C:O4'	2.16	0.45
7:2H:54:ARG:HB3	7:2H:65:HIS:CD2	2.51	0.45
13:2R:104:ARG:HD2	13:2R:107:ASP:OD1	2.16	0.45
32:2a:1004:A:OP1	32:2a:1024:G:N2	2.49	0.45
32:2a:1323:G:H2'	32:2a:1324:A:C8	2.52	0.45
47:2p:74:LEU:HD23	47:2p:79:VAL:HG11	1.98	0.45
50:2s:6:LYS:HB3	50:2s:6:LYS:HE2	1.70	0.45
1:1A:200:U:O2	1:1A:386:G:N2	2.50	0.45
1:1A:271(E):U:H2'	1:1A:271(F):C:C6	2.52	0.45
1:1A:2168:G:C2	1:1A:2171:A:C8	3.05	0.45
1:1A:2896:C:H2'	1:1A:2897:U:H6	1.82	0.45
7:1H:154:PRO:HB3	7:1H:163:TYR:CZ	2.51	0.45
9:1N:60:ILE:HG13	9:1N:61:ARG:H	1.82	0.45
32:1a:502:G:OP1	43:1l:118:SER:HB3	2.17	0.45
32:1a:620:C:C2	35:1d:135:LEU:HG	2.52	0.45
32:1a:926:G:H4'	53:1y:95:ARG:NH1	2.32	0.45
32:1a:1110:A:OP2	61:1a:1920:HOH:O	2.21	0.45
32:1a:1346:A:N1	32:1a:1374:A:H5''	2.32	0.45
35:1d:122:ARG:HD2	35:1d:122:ARG:HA	1.71	0.45
40:1i:16:ARG:HB2	40:1i:64:THR:CG2	2.47	0.45
44:1m:49:THR:HG23	44:1m:52:GLU:OE1	2.15	0.45
1:2A:323:G:H1'	1:2A:1205:U:O2	2.15	0.45
1:2A:709:U:H2'	1:2A:710:G:C8	2.51	0.45
1:2A:1009:A:H5'	16:2U:59:ARG:HD3	1.99	0.45
1:2A:1091:G:H2'	1:2A:1091:G:N3	2.32	0.45
1:2A:1686:C:H2'	1:2A:1687:G:O4'	2.17	0.45
1:2A:2611:U:H3'	1:2A:2611:U:OP2	2.17	0.45
2:2B:66:A:N6	2:2B:109:C:H5'	2.28	0.45
4:2E:35:GLN:OE1	4:2E:66:HIS:HE1	1.99	0.45
4:2E:119:ARG:HG2	4:2E:160:TYR:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:27:24:THR:CG2	29:27:27:GLY:H	2.29	0.45
34:2c:11:ARG:O	34:2c:13:GLY:N	2.50	0.45
37:2f:22:GLU:OE2	37:2f:84:ASN:ND2	2.35	0.45
38:2g:26:PHE:O	38:2g:30:ILE:HG13	2.17	0.45
51:2t:56:MET:HE2	51:2t:56:MET:HB3	1.75	0.45
1:1A:569:U:C4	1:1A:570:G:C6	3.04	0.45
2:1B:4:C:H42	2:1B:117:G:H1	1.64	0.45
32:1a:189(C):C:H2'	32:1a:189(D):C:O4'	2.17	0.45
32:1a:407:G:OP1	35:1d:115:ARG:NH2	2.50	0.45
32:1a:1297:C:O2	38:1g:114:ARG:NH1	2.50	0.45
32:1a:1446:U:O2'	32:1a:1447:A:O5'	2.35	0.45
38:1g:46:ALA:HB1	38:1g:121:ALA:HB2	1.99	0.45
1:2A:263:C:O2'	1:2A:429:A:N3	2.47	0.45
1:2A:1085:A:H2'	1:2A:1086:A:C2	2.52	0.45
1:2A:1105:U:H2'	1:2A:1106:G:C8	2.51	0.45
1:2A:2846:G:H2'	1:2A:2847:U:O4'	2.17	0.45
5:2F:101:LEU:HD12	5:2F:102:PRO:HD2	1.98	0.45
6:2G:9:ARG:O	6:2G:13:GLU:HB2	2.16	0.45
6:2G:19:LEU:HD23	6:2G:19:LEU:HA	1.86	0.45
9:2N:30:ILE:HG23	9:2N:52:VAL:HG11	1.99	0.45
32:2a:309:G:H2'	32:2a:310:G:H8	1.82	0.45
32:2a:1426:C:H2'	32:2a:1427:U:C6	2.51	0.45
44:2m:96:LEU:C	44:2m:110:ARG:HG2	2.42	0.45
49:2r:53:ARG:HA	49:2r:56:THR:OG1	2.17	0.45
53:2y:12:ILE:HG22	53:2y:17:ARG:HG3	1.99	0.45
1:1A:1083:U:H1'	1:1A:1086:A:N6	2.31	0.44
3:1D:275:LYS:HG3	3:1D:276:LYS:H	1.81	0.44
7:1H:13:LYS:HA	7:1H:14:GLY:HA2	1.53	0.44
7:1H:163:TYR:OH	61:1H:301:HOH:O	2.21	0.44
12:1Q:109:VAL:HG22	12:1Q:113:GLN:CD	2.41	0.44
15:1T:24:PRO:HD3	15:1T:52:ILE:HD12	1.98	0.44
30:18:62:LEU:HB3	30:18:65:GLU:CG	2.48	0.44
32:1a:62:U:H1'	32:1a:379:C:H1'	1.99	0.44
32:1a:1028:C:H2'	32:1a:1029:C:H4'	1.97	0.44
32:1a:1304:G:C6	32:1a:1305:G:N1	2.84	0.44
33:1b:76:GLN:HE22	33:1b:206:ASP:HB3	1.83	0.44
1:2A:500:G:N1	1:2A:503:A:OP2	2.49	0.44
1:2A:720:C:H2'	1:2A:721:C:C6	2.52	0.44
1:2A:1711:C:H2'	1:2A:1712:C:C6	2.52	0.44
1:2A:2387:U:H1'	22:20:41:ARG:NE	2.32	0.44
4:2E:9:VAL:HG13	4:2E:25:VAL:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:21:22:GLY:O	23:21:32:LYS:NZ	2.37	0.44
32:2a:59:A:H5''	32:2a:387:U:H5''	1.99	0.44
32:2a:399:G:H2'	32:2a:400:C:C6	2.52	0.44
33:2b:33:TYR:HB2	33:2b:43:ASP:HA	1.99	0.44
39:2h:103:VAL:CG2	39:2h:110:ALA:HB2	2.47	0.44
42:2k:62:GLN:HG3	42:2k:97:ALA:HB2	1.98	0.44
43:2l:69:TYR:HD2	43:2l:99:HIS:CE1	2.35	0.44
45:2n:21:TYR:HE1	45:2n:23:ARG:NE	2.15	0.44
46:2o:70:LEU:HD11	46:2o:77:ARG:HB2	1.98	0.44
53:2y:29:LYS:HE3	53:2y:30:TRP:CZ3	2.52	0.44
1:1A:272(B):G:H2'	1:1A:272(C):G:H8	1.81	0.44
1:1A:1470:G:H5''	1:1A:1471:A:OP1	2.17	0.44
1:1A:1529:G:C5	1:1A:1530:C:C4	3.05	0.44
1:1A:2379:G:O2'	14:1S:17:ARG:NH2	2.51	0.44
1:1A:2691:C:O3'	1:1A:2871:C:H4'	2.17	0.44
13:1R:53:HIS:ND1	13:1R:94:TYR:OH	2.41	0.44
32:1a:56:U:H2'	32:1a:57:G:H8	1.83	0.44
32:1a:1005:A:H5''	32:1a:1006:C:OP2	2.18	0.44
32:1a:1125:U:H4'	41:1j:5:ARG:NH2	2.32	0.44
32:1a:1320:C:H2'	32:1a:1321:C:O4'	2.18	0.44
32:1a:1438:G:H2'	32:1a:1439:C:H6	1.81	0.44
41:1j:64:GLU:HB3	45:1n:59:ALA:HB2	1.99	0.44
1:2A:630:G:N2	1:2A:633:A:OP2	2.40	0.44
1:2A:1514:U:H2'	1:2A:1515:G:C8	2.51	0.44
1:2A:1578:U:H2'	1:2A:1579:A:H5'	1.99	0.44
1:2A:1939:5MU:OP1	1:2A:2604:U:O2'	2.34	0.44
1:2A:2095:C:H2'	1:2A:2096:U:O4'	2.18	0.44
1:2A:2811:G:OP1	4:2E:60:ASN:HB2	2.16	0.44
5:2F:124:LEU:O	5:2F:193:VAL:HA	2.17	0.44
5:2F:183:VAL:O	5:2F:187:VAL:HG23	2.17	0.44
9:2N:14:VAL:HG11	9:2N:138:LEU:HD12	1.99	0.44
23:21:8:SER:HB3	23:21:66:HIS:CD2	2.52	0.44
31:29:9:ARG:HE	31:29:16:VAL:CG2	2.30	0.44
32:2a:874:G:H2'	32:2a:875:C:H6	1.82	0.44
43:2l:53:ARG:HB2	43:2l:93:LEU:HD11	1.98	0.44
44:2m:13:LYS:HA	44:2m:44:ARG:HH11	1.81	0.44
1:1A:530:G:OP2	61:1A:4170:HOH:O	2.21	0.44
1:1A:1031:G:H5''	31:19:8:LYS:HE3	1.99	0.44
1:1A:1239:G:H2'	1:1A:1240:U:O4'	2.17	0.44
5:1F:74:ARG:H	5:1F:74:ARG:HG3	1.37	0.44
5:1F:108:LYS:HE2	5:1F:112:MET:HE3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:1F:188:ARG:NH2	61:1F:409:HOH:O	2.50	0.44
11:1P:70:GLN:O	11:1P:73:GLY:N	2.50	0.44
16:1U:76:TYR:CZ	16:1U:80:ILE:HG13	2.52	0.44
30:18:23:VAL:HG13	30:18:47:LYS:HB3	1.99	0.44
32:1a:35:G:O2'	43:1l:118:SER:O	2.20	0.44
32:1a:452:A:H4'	47:1p:72:ARG:NH1	2.32	0.44
32:1a:983:A:H2	32:1a:984:C:C6	2.34	0.44
32:1a:1040:U:H2'	32:1a:1041:A:H8	1.82	0.44
32:1a:1203:C:H2'	32:1a:1204:A:O4'	2.18	0.44
32:1a:1239:A:H62	32:1a:1299:A:H61	1.64	0.44
43:1l:97:ARG:HG3	43:1l:98:TYR:CE2	2.53	0.44
48:1q:54:GLY:O	48:1q:81:ARG:HB2	2.17	0.44
53:1y:74:ILE:O	53:1y:78:ILE:HG12	2.17	0.44
1:2A:981:A:N1	1:2A:2027:G:O2'	2.45	0.44
1:2A:1012:U:H5	9:2N:28:THR:HG21	1.83	0.44
1:2A:1426:G:O2'	1:2A:1572:A:N6	2.50	0.44
1:2A:2251:OMG:HM23	1:2A:2251:OMG:H1'	1.74	0.44
1:2A:2307:G:H5'	1:2A:2308:G:C2	2.53	0.44
3:2D:70:TRP:HB3	3:2D:190:TYR:CZ	2.53	0.44
3:2D:124:PRO:HB2	3:2D:126:GLN:HG2	1.99	0.44
6:2G:28:VAL:O	6:2G:31:VAL:HG13	2.17	0.44
9:2N:138:LEU:HD23	9:2N:138:LEU:HA	1.79	0.44
32:2a:1206:G:H2'	32:2a:1207:2MG:C8	2.52	0.44
37:2f:36:ARG:HB3	37:2f:36:ARG:CZ	2.47	0.44
40:2i:92:TYR:O	40:2i:96:LEU:HB2	2.18	0.44
40:2i:96:LEU:O	40:2i:100:GLY:N	2.50	0.44
41:2j:6:ILE:N	41:2j:72:VAL:O	2.48	0.44
1:1A:383:U:OP2	61:1A:4172:HOH:O	2.21	0.44
1:1A:747:U:H1'	18:1W:92:ARG:HH12	1.82	0.44
1:1A:1809:A:H2'	1:1A:1810:A:C8	2.53	0.44
1:1A:1889:A:H2'	1:1A:1890:A:C8	2.53	0.44
1:1A:2137:C:C2	1:1A:2154:G:N2	2.86	0.44
1:1A:2602:A:H1'	1:1A:2603:G:H5''	1.99	0.44
1:1A:2746:U:OP2	61:1A:4173:HOH:O	2.21	0.44
3:1D:97:TYR:C	3:1D:99:ASP:N	2.75	0.44
13:1R:44:LEU:HD22	13:1R:48:VAL:HG23	1.99	0.44
32:1a:407:G:P	35:1d:3:ARG:HH12	2.41	0.44
32:1a:1003:G:C2'	32:1a:1004:A:H4'	2.29	0.44
32:1a:1182:G:H4'	32:1a:1183:A:H5'	2.00	0.44
35:1d:20:TYR:HA	35:1d:26:CYS:SG	2.58	0.44
35:1d:121:VAL:O	35:1d:134:ASP:HA	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:91:LEU:HD21	36:1e:110:LEU:HD21	1.99	0.44
38:1g:75:VAL:HA	38:1g:87:VAL:O	2.17	0.44
38:1g:90:GLU:CD	38:1g:90:GLU:H	2.26	0.44
41:1j:30:SER:OG	41:1j:81:THR:HG22	2.18	0.44
51:1t:50:GLU:O	51:1t:100:ILE:HD11	2.17	0.44
1:2A:740:U:H2'	1:2A:741:G:C8	2.53	0.44
1:2A:801:G:OP2	5:2F:55:GLY:HA2	2.18	0.44
1:2A:2070:G:H2'	1:2A:2071:A:C8	2.52	0.44
1:2A:2099:U:H3	1:2A:2190:G:H1	1.65	0.44
1:2A:2183:C:H2'	1:2A:2184:G:C8	2.52	0.44
1:2A:2626:C:H2'	1:2A:2627:G:O4'	2.18	0.44
21:2Z:150:LEU:HB3	21:2Z:171:ILE:HD11	1.99	0.44
32:2a:630:G:O2'	32:2a:631:G:H5'	2.17	0.44
32:2a:664:G:N2	32:2a:741:G:H1	2.08	0.44
32:2a:1074:G:O2'	32:2a:1101:A:N1	2.48	0.44
32:2a:1077:G:N2	32:2a:1080:A:OP2	2.47	0.44
32:2a:1286:A:H2'	32:2a:1287:A:H4'	1.98	0.44
33:2b:213:LEU:HD23	33:2b:217:ARG:HG3	2.00	0.44
39:2h:112:LEU:HA	39:2h:134:ILE:HG12	1.98	0.44
40:2i:53:VAL:HG11	40:2i:92:TYR:HE1	1.82	0.44
42:2k:97:ALA:O	42:2k:101:SER:HB3	2.18	0.44
43:2l:7:ILE:HD13	43:2l:7:ILE:HA	1.85	0.44
1:1A:600:G:H2'	1:1A:601:C:O4'	2.18	0.44
1:1A:969:U:H2'	1:1A:970:C:C6	2.53	0.44
1:1A:1090:U:C2	1:1A:1102:C:H1'	2.52	0.44
1:1A:1598:C:H2'	1:1A:1599:C:H6	1.83	0.44
1:1A:2382:G:H21	30:18:42:ARG:NH2	2.16	0.44
26:14:69:LYS:HB3	26:14:69:LYS:HE2	1.82	0.44
32:1a:404:U:H2'	32:1a:405:U:C6	2.52	0.44
32:1a:591:U:H2'	32:1a:592:G:C8	2.51	0.44
32:1a:1456:G:N2	51:1t:43:LEU:HD11	2.32	0.44
1:2A:2030:A:H4'	1:2A:2031:A:C8	2.52	0.44
1:2A:2206:G:H8	1:2A:2207:G:N7	2.15	0.44
1:2A:2395:C:O2'	23:21:30:VAL:HG22	2.17	0.44
1:2A:2849:U:OP2	15:2T:95:ARG:HG3	2.18	0.44
6:2G:152:LEU:H	6:2G:152:LEU:HD12	1.83	0.44
7:2H:113:VAL:HG11	7:2H:151:ILE:HD13	1.99	0.44
11:2P:6:LEU:HD23	11:2P:6:LEU:HA	1.87	0.44
32:2a:7:G:H5'	32:2a:298:A:O4'	2.17	0.44
32:2a:975:A:H5''	32:2a:1363(A):A:N6	2.33	0.44
32:2a:1441:G:H1'	32:2a:1461:G:N2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:2c:20:SER:OG	34:2c:22:TRP:NE1	2.49	0.44
38:2g:75:VAL:HB	38:2g:86:GLN:HB3	2.00	0.44
43:2l:78:GLN:O	43:2l:81:SER:HB2	2.17	0.44
53:2y:78:ILE:H	53:2y:78:ILE:HG12	1.47	0.44
53:2y:87:LYS:O	53:2y:91:LYS:HB2	2.16	0.44
1:1A:1063:G:H1'	1:1A:1077:A:H2	1.83	0.44
1:1A:2124:G:H2'	1:1A:2125:G:H5'	1.99	0.44
1:1A:2355:C:H1'	22:10:39:ARG:HH21	1.82	0.44
1:1A:2629:A:H1'	1:1A:2630:G:H5''	1.99	0.44
23:11:73:LEU:HD23	23:11:73:LEU:HA	1.87	0.44
32:1a:131:C:H2'	32:1a:132:C:C6	2.52	0.44
32:1a:376:G:H5''	47:1p:5:ARG:CD	2.47	0.44
32:1a:1189:C:OP1	45:1n:58:LYS:NZ	2.48	0.44
40:1i:22:GLY:HA3	40:1i:60:ASP:OD2	2.17	0.44
1:2A:1062:G:N7	1:2A:1070:A:H1'	2.32	0.44
1:2A:1344:G:O2'	1:2A:1385:G:H2'	2.18	0.44
1:2A:1639:U:H4'	1:2A:2699:C:H4'	2.00	0.44
1:2A:2238:G:H2'	1:2A:2238:G:N3	2.33	0.44
1:2A:2441:C:OP2	1:2A:2586:C:O2'	2.34	0.44
3:2D:71:ASP:OD2	3:2D:103:ARG:NH2	2.44	0.44
4:2E:97:LYS:N	4:2E:100:GLU:OE1	2.50	0.44
4:2E:203:LYS:HD3	4:2E:203:LYS:HA	1.77	0.44
7:2H:140:LYS:HB2	7:2H:140:LYS:HE3	1.68	0.44
13:2R:36:THR:HG22	13:2R:37:THR:H	1.83	0.44
32:2a:108:G:O6	51:2t:15:ARG:HG2	2.18	0.44
32:2a:402:G:O2'	32:2a:620:C:N3	2.46	0.44
32:2a:500:G:H2'	32:2a:501:C:C6	2.52	0.44
32:2a:542:G:H5'	35:2d:41:GLY:HA3	1.99	0.44
32:2a:933:G:O6	38:2g:3:ARG:NH2	2.50	0.44
32:2a:981:U:O4	61:2a:3208:HOH:O	2.20	0.44
32:2a:1003:G:N2	32:2a:1025:U:O4	2.51	0.44
32:2a:1127:G:H5'	32:2a:1280:A:O2'	2.18	0.44
33:2b:114:ARG:O	33:2b:118:LEU:HB2	2.17	0.44
35:2d:72:GLU:OE2	35:2d:207:TYR:OH	2.28	0.44
38:2g:18:TYR:CD1	38:2g:59:LEU:HB2	2.52	0.44
38:2g:114:ARG:HB2	38:2g:115:ARG:NH2	2.33	0.44
49:2r:37:VAL:HG22	49:2r:78:LEU:HB3	1.99	0.44
50:2s:17:GLU:HG2	50:2s:21:GLU:HG3	1.98	0.44
1:1A:749:C:OP2	61:1A:4167:HOH:O	2.21	0.44
1:1A:1070:A:N7	1:1A:1097:U:H4'	2.33	0.44
1:1A:1678:G:H5''	1:1A:1678:G:N3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:2405:G:O2'	1:1A:2411:A:N6	2.46	0.44
11:1P:70:GLN:NE2	61:1P:311:HOH:O	2.51	0.44
16:1U:10:ARG:NH2	61:1U:308:HOH:O	2.50	0.44
24:12:65:ASN:O	24:12:69:ARG:HG3	2.17	0.44
32:1a:79:G:N2	32:1a:90:U:O2	2.51	0.44
32:1a:441:A:H8	32:1a:441:A:OP2	2.00	0.44
32:1a:515:G:H2'	32:1a:516:PSU:O4'	2.18	0.44
32:1a:580:U:H2'	32:1a:581:G:C8	2.53	0.44
32:1a:971:G:OP1	32:1a:972:C:H5''	2.18	0.44
47:1p:48:TRP:CD1	47:1p:48:TRP:H	2.35	0.44
1:2A:271(T):C:N4	61:2A:4119:HOH:O	2.50	0.44
1:2A:609:A:H2'	1:2A:610:G:O4'	2.18	0.44
1:2A:1756:G:H4'	1:2A:1758:G:O4'	2.18	0.44
1:2A:2633:G:H5''	1:2A:2812:G:H5'	1.99	0.44
12:2Q:141:GLN:HE22	21:2Z:74:VAL:HG13	1.83	0.44
15:2T:6:LEU:HD12	15:2T:6:LEU:HA	1.66	0.44
23:21:59:THR:HG23	61:21:206:HOH:O	2.16	0.44
31:29:24:TYR:CE1	31:29:35:ARG:HG3	2.52	0.44
32:2a:187:C:O2'	51:2t:89:ARG:HD3	2.18	0.44
32:2a:261:U:OP2	51:2t:79:ARG:NH2	2.51	0.44
32:2a:707:C:H2'	32:2a:708:C:C6	2.52	0.44
35:2d:119:GLN:HG2	35:2d:123:HIS:CD2	2.53	0.44
40:2i:78:LYS:HA	40:2i:81:ILE:HB	1.98	0.44
47:2p:70:ALA:HA	47:2p:73:LEU:HD12	1.99	0.44
1:1A:816:C:H4'	61:1A:4678:HOH:O	2.17	0.44
1:1A:884:C:H2'	1:1A:885:C:O4'	2.18	0.44
1:1A:2162:G:H4'	1:1A:2172:U:O2'	2.17	0.44
11:1P:135:LEU:HD23	11:1P:135:LEU:HA	1.75	0.44
14:1S:99:LYS:HE2	14:1S:103:GLU:OE2	2.18	0.44
32:1a:651:C:H2'	32:1a:652:U:C6	2.53	0.44
32:1a:839:U:H1'	32:1a:840:C:OP1	2.18	0.44
40:1i:3:GLN:NE2	40:1i:20:ARG:HH21	2.16	0.44
41:1j:21:GLN:HG3	41:1j:25:GLU:OE2	2.18	0.44
50:1s:48:THR:HG22	50:1s:61:TYR:HB2	2.00	0.44
1:2A:94(A):G:O2'	24:22:45:SER:O	2.35	0.44
1:2A:116:C:H2'	1:2A:117:G:O4'	2.18	0.44
1:2A:265:A:N1	1:2A:427:U:O2'	2.49	0.44
1:2A:637:A:H2'	11:2P:117:GLU:OE1	2.17	0.44
1:2A:1074:G:C2	1:2A:1075:C:H1'	2.52	0.44
1:2A:1747:G:H2'	1:2A:1747(A):G:H8	1.83	0.44
1:2A:1916:A:H2'	1:2A:1917:PSU:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2B:90:A:N7	2:2B:91:C:H1'	2.33	0.44
27:25:52:TYR:O	27:25:55:ARG:HG3	2.17	0.44
30:28:23:VAL:CG1	30:28:47:LYS:HD3	2.48	0.44
32:2a:90:U:H2'	32:2a:91:C:C6	2.53	0.44
32:2a:539:A:OP2	43:2l:115:LYS:HE3	2.17	0.44
32:2a:565:U:OP2	32:2a:566:G:O2'	2.31	0.44
32:2a:653:A:C5	39:2h:56:LYS:HD2	2.53	0.44
32:2a:976:G:P	45:2n:32:SER:H	2.41	0.44
32:2a:1187:G:H2'	32:2a:1188:A:C8	2.53	0.44
40:2i:96:LEU:HD23	40:2i:96:LEU:HA	1.89	0.44
49:2r:45:SER:OG	49:2r:47:THR:HG22	2.18	0.44
1:1A:400:G:N7	61:1A:4375:HOH:O	2.37	0.44
1:1A:526:A:H2'	61:1A:4415:HOH:O	2.17	0.44
1:1A:829:A:N7	1:1A:2248:C:H5'	2.33	0.44
1:1A:1073:A:H2	1:1A:1074:G:N7	2.16	0.44
1:1A:1412:A:H2'	1:1A:1413:G:C8	2.53	0.44
1:1A:2166:G:H8	1:1A:2166:G:O5'	2.01	0.44
1:1A:2206:G:H8	1:1A:2207:G:N2	2.16	0.44
6:1G:181:ARG:HG3	6:1G:182:LYS:N	2.28	0.44
16:1U:76:TYR:CE2	16:1U:80:ILE:HG13	2.53	0.44
21:1Z:155:LEU:HD12	21:1Z:155:LEU:HA	1.83	0.44
36:1e:135:THR:O	36:1e:139:LEU:HG	2.18	0.44
43:1l:119:LYS:H	43:1l:119:LYS:HG3	1.53	0.44
47:1p:19:ILE:HG23	47:1p:36:ILE:HG13	2.00	0.44
1:2A:1359:A:H61	1:2A:1372:U:H3	1.65	0.44
1:2A:2312:U:H5'	6:2G:88:ILE:HD11	2.00	0.44
1:2A:2343:C:H4'	1:2A:2373:G:O3'	2.18	0.44
4:2E:28:ALA:HB3	4:2E:93:VAL:CG1	2.47	0.44
6:2G:68:PRO:HB3	6:2G:92:VAL:HG12	1.99	0.44
32:2a:130:A:N3	32:2a:263:A:O2'	2.46	0.44
32:2a:601:C:H2'	32:2a:602:A:H8	1.81	0.44
32:2a:1005:A:H5''	32:2a:1006:C:C5	2.53	0.44
32:2a:1040:U:H2'	32:2a:1041:A:O4'	2.17	0.44
32:2a:1279:A:H2'	32:2a:1279:A:N3	2.33	0.44
32:2a:1348:U:H4'	40:2i:120:ARG:HG3	2.00	0.44
33:2b:118:LEU:HD13	33:2b:142:LEU:HB2	1.99	0.44
36:2e:148:VAL:HG21	39:2h:107:LEU:HD22	2.00	0.44
37:2f:100:ASN:ND2	49:2r:23:LYS:HE2	2.32	0.44
1:1A:27:G:N2	1:1A:512:G:H1'	2.33	0.43
1:1A:77:C:OP1	24:12:59:ARG:HD3	2.18	0.43
1:1A:279:C:N3	1:1A:361:G:N2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1A:824:A:H1'	1:1A:2358:G:N7	2.33	0.43
1:1A:1171:G:H5'	61:1A:4238:HOH:O	2.19	0.43
1:1A:1742:G:H2'	1:1A:1743:C:O4'	2.18	0.43
1:1A:2458:G:OP2	61:1A:4171:HOH:O	2.21	0.43
8:1I:46:ALA:O	8:1I:50:ARG:HG2	2.18	0.43
17:1V:74:LYS:HB2	17:1V:83:ARG:HB2	1.99	0.43
32:1a:501:C:H1'	32:1a:549:C:H1'	2.00	0.43
32:1a:615:C:C2	32:1a:616:G:C8	3.06	0.43
32:1a:865:A:H2	32:1a:918:A:H4'	1.83	0.43
32:1a:986:A:H2'	32:1a:987:G:C8	2.53	0.43
44:1m:108:ARG:HA	44:1m:108:ARG:HD3	1.75	0.43
1:2A:580:C:H2'	1:2A:581:C:C6	2.52	0.43
1:2A:729:G:C5	3:2D:208:LYS:HB2	2.52	0.43
1:2A:824:A:H2'	1:2A:825:C:O4'	2.18	0.43
1:2A:1291:C:H2'	1:2A:1292:U:C6	2.53	0.43
1:2A:1987:G:OP2	61:2A:3791:HOH:O	2.21	0.43
1:2A:2093:G:C6	1:2A:2225:A:C8	3.06	0.43
1:2A:2115:G:H22	1:2A:2119:A:H5'	1.83	0.43
3:2D:137:PRO:O	3:2D:140:THR:HG23	2.18	0.43
8:2I:93:THR:O	8:2I:97:ILE:HG13	2.18	0.43
13:2R:9:LYS:O	13:2R:17:ARG:HD3	2.17	0.43
20:2Y:21:LYS:HB2	20:2Y:21:LYS:HE3	1.82	0.43
21:2Z:35:ARG:HD2	21:2Z:35:ARG:HA	1.56	0.43
32:2a:792:A:O2'	32:2a:794:A:N7	2.44	0.43
32:2a:940:C:H2'	32:2a:941:G:C8	2.53	0.43
32:2a:976:G:N2	32:2a:1363:C:OP2	2.51	0.43
32:2a:1071:C:H2'	32:2a:1072:G:C8	2.48	0.43
32:2a:1263:C:H2'	32:2a:1264:C:H6	1.82	0.43
34:2c:3:ASN:HB2	34:2c:4:LYS:H	1.72	0.43
38:2g:23:VAL:HG13	38:2g:43:PHE:CE2	2.53	0.43
44:2m:108:ARG:HD3	44:2m:108:ARG:HA	1.79	0.43
45:2n:58:LYS:HE3	45:2n:58:LYS:HB3	1.73	0.43
48:2q:53:LEU:HD23	48:2q:82:MET:HE1	2.00	0.43
1:1A:324:A:H2'	1:1A:325:G:O4'	2.18	0.43
1:1A:2319:G:H22	14:1S:3:ARG:HA	1.82	0.43
1:1A:2655:G:O2'	1:1A:2664:G:O6	2.36	0.43
1:1A:2784:C:H1'	4:1E:37:ARG:HH12	1.83	0.43
2:1B:31:C:H4'	6:1G:29:TRP:CH2	2.53	0.43
8:1I:84:GLY:O	8:1I:86:THR:N	2.49	0.43
17:1V:49:THR:HG22	17:1V:49:THR:O	2.18	0.43
32:1a:1217:C:OP1	45:1n:9:LYS:HE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:1f:14:LEU:HB3	37:1f:18:GLN:HB2	2.00	0.43
1:2A:27:G:O2'	1:2A:28:A:OP2	2.34	0.43
1:2A:906:G:O2'	12:2Q:67:ARG:NH2	2.46	0.43
1:2A:1053:C:H4'	1:2A:1054:A:OP1	2.18	0.43
1:2A:1069:A:H2'	1:2A:1073:A:N7	2.33	0.43
1:2A:2306:C:N4	6:2G:42:GLY:O	2.50	0.43
9:2N:30:ILE:HA	9:2N:33:LEU:HD12	2.00	0.43
9:2N:69:GLN:O	9:2N:71:ILE:HD12	2.18	0.43
21:2Z:108:PRO:HG2	21:2Z:117:LEU:HD13	2.00	0.43
32:2a:31:G:O2'	32:2a:48:C:N4	2.51	0.43
32:2a:572:A:OP2	61:2a:3221:HOH:O	2.21	0.43
32:2a:581:G:OP1	46:2o:61:GLY:HA3	2.17	0.43
33:2b:130:ARG:HD3	33:2b:130:ARG:HA	1.73	0.43
35:2d:114:ARG:HA	35:2d:117:ALA:HB3	1.99	0.43
36:2e:113:ALA:HB3	36:2e:115:VAL:HG23	2.00	0.43
38:2g:59:LEU:O	38:2g:63:LYS:HG3	2.17	0.43
38:2g:72:ARG:NH2	38:2g:142:GLU:OE1	2.51	0.43
39:2h:28:ALA:HB3	39:2h:57:PRO:HB2	1.99	0.43
40:2i:25:LYS:H	40:2i:60:ASP:CB	2.31	0.43
40:2i:26:VAL:HA	40:2i:61:ALA:O	2.18	0.43
40:2i:51:ARG:HG2	40:2i:56:LEU:HD21	2.01	0.43
44:2m:54:VAL:HG12	44:2m:57:ARG:NH1	2.33	0.43
1:1A:288:C:H2'	1:1A:289:A:H8	1.83	0.43
1:1A:774:A:N3	1:1A:774:A:H2'	2.33	0.43
1:1A:839:U:H1'	1:1A:1191:G:H1'	2.00	0.43
1:1A:1530:C:O2'	1:1A:1531:C:H6	2.01	0.43
1:1A:2336:A:H61	22:10:43:THR:HG22	1.84	0.43
6:1G:59:GLU:OE1	6:1G:138:GLN:NE2	2.41	0.43
23:11:69:LYS:HA	23:11:69:LYS:HD2	1.72	0.43
24:12:1:MET:HG2	24:12:6:VAL:HG23	2.00	0.43
32:1a:1140:C:H2'	32:1a:1141:C:C6	2.52	0.43
32:1a:1292:U:H2'	32:1a:1293:G:H8	1.83	0.43
36:1e:53:LEU:H	36:1e:53:LEU:HD12	1.83	0.43
38:1g:80:VAL:HB	38:1g:85:TYR:HE2	1.82	0.43
42:1k:58:PRO:HG3	42:1k:89:ALA:O	2.19	0.43
43:1l:41:ARG:HD2	43:1l:43:VAL:HG23	2.00	0.43
1:2A:23:G:OP1	1:2A:504:U:N3	2.37	0.43
1:2A:270:A:OP2	1:2A:271(X):G:N1	2.34	0.43
1:2A:620:G:N3	1:2A:620:G:H5'	2.33	0.43
1:2A:878:A:H2'	1:2A:879:G:O4'	2.18	0.43
1:2A:1525:G:H2'	1:2A:1526:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1588:C:H2'	1:2A:1589:C:C6	2.53	0.43
1:2A:1946:U:H2'	1:2A:1947:C:C6	2.53	0.43
1:2A:1991:U:H2'	1:2A:1992:G:H5''	2.00	0.43
1:2A:2032:G:H4'	61:2A:5286:HOH:O	2.18	0.43
1:2A:2331:G:O2'	1:2A:2336:A:N1	2.49	0.43
5:2F:178:PRO:HB2	5:2F:201:VAL:HG21	2.01	0.43
6:2G:19:LEU:HD11	6:2G:172:LEU:HB2	2.00	0.43
9:2N:1:MET:HE1	16:2U:94:ASN:ND2	2.33	0.43
18:2W:9:TYR:H	18:2W:102:HIS:CE1	2.36	0.43
21:2Z:91:LEU:HD12	21:2Z:91:LEU:HA	1.77	0.43
21:2Z:145:GLU:H	21:2Z:148:ASP:HB2	1.83	0.43
23:21:83:GLU:HA	23:21:84:GLY:HA2	1.66	0.43
26:24:59:PHE:HB2	26:24:62:ARG:NH2	2.33	0.43
32:2a:142:G:H2'	32:2a:143:A:C8	2.53	0.43
32:2a:539:A:C6	32:2a:540:G:C6	3.07	0.43
32:2a:1496:C:H2'	32:2a:1497:G:O4'	2.18	0.43
33:2b:46:LYS:HA	33:2b:49:GLU:HG3	1.99	0.43
1:1A:121:G:H4'	1:1A:149:A:H5'	2.00	0.43
1:1A:154(A):C:N4	1:1A:171:G:H1	2.15	0.43
1:1A:1050:A:H2'	1:1A:1051:G:C8	2.53	0.43
1:1A:2051:A:H5'	1:1A:2578:G:O4'	2.18	0.43
1:1A:2287:A:O2'	1:1A:2288:A:H3'	2.18	0.43
1:1A:2854:G:H2'	1:1A:2855:C:C6	2.53	0.43
9:1N:36:GLY:HA2	9:1N:38:HIS:CE1	2.54	0.43
9:1N:48:MET:O	9:1N:48:MET:HE3	2.18	0.43
10:1O:2:ILE:HB	10:1O:33:ALA:HB3	2.00	0.43
14:1S:15:ARG:HB3	14:1S:19:LYS:HE3	2.00	0.43
21:1Z:79:ARG:HB2	21:1Z:80:ARG:HD2	2.01	0.43
32:1a:115:G:H4'	32:1a:116:A:O5'	2.18	0.43
32:1a:254:G:N2	48:1q:16:GLN:OE1	2.44	0.43
32:1a:391:G:H2'	32:1a:392:G:O4'	2.17	0.43
32:1a:814:A:OP2	61:1a:1921:HOH:O	2.21	0.43
32:1a:963:G:H5'	61:1a:2176:HOH:O	2.18	0.43
32:1a:964:A:N3	32:1a:969:A:O2'	2.48	0.43
32:1a:1104:G:O5'	33:1b:111:ARG:HD3	2.18	0.43
33:1b:134:GLU:HG2	33:1b:137:ARG:HH21	1.83	0.43
34:1c:12:LEU:HD11	45:1n:51:GLY:HA2	1.99	0.43
39:1h:6:ILE:O	39:1h:10:LEU:HG	2.18	0.43
1:2A:2029:G:H2'	1:2A:2031:A:OP1	2.19	0.43
1:2A:2113:U:H2'	1:2A:2114:A:O4'	2.19	0.43
1:2A:2115:G:H3'	1:2A:2116:G:C5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2732:G:H3'	1:2A:2733:A:O4'	2.18	0.43
2:2B:73:A:C6	2:2B:74:U:C2	3.07	0.43
8:2I:72:LEU:HD11	8:2I:107:VAL:HG11	1.99	0.43
21:2Z:7:ALA:HB2	21:2Z:59:LEU:HB3	1.99	0.43
21:2Z:69:THR:HG22	21:2Z:90:VAL:HA	1.99	0.43
26:24:64:GLY:C	26:24:66:SER:H	2.25	0.43
32:2a:141:A:H1'	32:2a:182:U:O2	2.18	0.43
32:2a:278:G:OP2	48:2q:41:LYS:NZ	2.29	0.43
32:2a:868:C:H2'	32:2a:869:G:O4'	2.18	0.43
32:2a:1287:A:H2'	32:2a:1288:A:C8	2.53	0.43
34:2c:82:GLU:O	34:2c:86:VAL:N	2.49	0.43
49:2r:22:VAL:HG23	49:2r:55:ARG:O	2.18	0.43
1:1A:10:G:H1'	1:1A:2801(A):A:C6	2.53	0.43
1:1A:784:A:H5'	1:1A:785:G:OP1	2.18	0.43
1:1A:945:A:C4	1:1A:2448:A:C2	3.06	0.43
1:1A:1271:G:OP2	61:1A:4102:HOH:O	2.21	0.43
1:1A:2267:A:OP1	61:1A:4164:HOH:O	2.21	0.43
2:1B:103:G:N2	21:1Z:73:GLN:HE22	2.16	0.43
15:1T:23:ARG:HD2	15:1T:120:ARG:CZ	2.48	0.43
20:1Y:9:LYS:HA	20:1Y:10:GLY:HA2	1.59	0.43
32:1a:132:C:H2'	32:1a:133:U:H6	1.83	0.43
32:1a:399:G:H2'	32:1a:400:C:C6	2.52	0.43
32:1a:1256:A:OP2	34:1c:26:LYS:NZ	2.41	0.43
33:1b:111:ARG:HH21	33:1b:114:ARG:HG2	1.84	0.43
33:1b:200:ILE:HD12	33:1b:200:ILE:H	1.84	0.43
34:1c:130:VAL:HG11	34:1c:153:VAL:HG11	2.01	0.43
37:1f:30:LEU:HB3	37:1f:35:ALA:HB3	2.00	0.43
37:1f:97:PHE:O	49:1r:31:LEU:N	2.40	0.43
37:1f:99:ALA:O	49:1r:28:GLU:HA	2.18	0.43
43:1l:47:LYS:HA	43:1l:48:PRO:HA	1.79	0.43
53:1y:23:ARG:HD2	53:1y:23:ARG:HA	1.63	0.43
1:2A:729:G:C8	3:2D:208:LYS:HD2	2.53	0.43
1:2A:854:G:H2'	1:2A:855:G:H8	1.83	0.43
1:2A:1226:A:OP1	16:2U:16:LYS:NZ	2.48	0.43
1:2A:1354:A:H5''	3:2D:38:LYS:HD3	2.00	0.43
1:2A:1790:C:H2'	1:2A:1791:A:C5	2.53	0.43
1:2A:1975:G:OP2	61:2A:3790:HOH:O	2.21	0.43
1:2A:2540:C:H2'	1:2A:2541:A:O4'	2.18	0.43
4:2E:16:ARG:O	4:2E:19:ARG:HB2	2.18	0.43
5:2F:116:ASP:OD2	11:2P:1:MET:N	2.40	0.43
8:2I:12:LEU:HD22	8:2I:19:VAL:HG21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:475:G:O2'	32:2a:476:G:H5'	2.17	0.43
32:2a:516:PSU:O2'	32:2a:519:C:N3	2.50	0.43
32:2a:667:G:O2'	46:2o:49:ASP:OD1	2.26	0.43
32:2a:1031:G:H2'	32:2a:1032:G:C8	2.53	0.43
32:2a:1106:G:H2'	32:2a:1107:C:C6	2.53	0.43
34:2c:116:VAL:HG13	34:2c:140:ARG:HH22	1.83	0.43
37:2f:61:LEU:HB3	37:2f:63:TYR:CE2	2.53	0.43
40:2i:3:GLN:HE21	40:2i:20:ARG:HE	1.67	0.43
40:2i:32:ASP:O	40:2i:36:TYR:N	2.40	0.43
41:2j:11:PHE:CE1	41:2j:67:THR:HG22	2.53	0.43
42:2k:59:TYR:CE2	42:2k:63:LEU:HD11	2.52	0.43
47:2p:60:LEU:HA	47:2p:60:LEU:HD12	1.75	0.43
50:2s:27:GLU:OE1	50:2s:47:HIS:NE2	2.52	0.43
1:1A:7:G:H2'	1:1A:8:A:O4'	2.18	0.43
21:1Z:98:MET:O	21:1Z:125:LEU:HD12	2.18	0.43
24:12:31:GLU:HG2	24:12:53:LEU:HD11	2.01	0.43
32:1a:1511:G:H2'	32:1a:1512:U:O4'	2.18	0.43
35:1d:77:ASN:HD22	35:1d:77:ASN:HA	1.64	0.43
35:1d:150:GLU:C	35:1d:152:SER:H	2.26	0.43
36:1e:7:GLU:OE1	36:1e:37:ARG:NE	2.48	0.43
36:1e:90:VAL:O	36:1e:120:THR:HA	2.18	0.43
41:1j:47:PHE:HB2	41:1j:63:PHE:HB2	1.99	0.43
47:1p:1:MET:HG3	47:1p:3:LYS:HG3	2.01	0.43
53:1y:3:MET:HB3	53:1y:3:MET:HE2	1.70	0.43
1:2A:495:G:OP2	61:2A:3789:HOH:O	2.21	0.43
1:2A:827:U:O2'	1:2A:2068:U:C2	2.66	0.43
1:2A:964:C:O2'	1:2A:2273:A:N3	2.40	0.43
1:2A:1053:C:H2'	1:2A:1054:A:C8	2.49	0.43
1:2A:1287:A:H8	13:2R:104:ARG:HD3	1.82	0.43
1:2A:1618:A:H5'	61:2A:4563:HOH:O	2.18	0.43
1:2A:2118:U:OP2	1:2A:2147:G:O2'	2.30	0.43
1:2A:2138:C:H2'	1:2A:2139:C:C6	2.53	0.43
1:2A:2156:G:H2'	1:2A:2157:G:H5'	2.01	0.43
1:2A:2420:C:OP1	30:28:34:TRP:HB3	2.18	0.43
4:2E:56:PRO:HA	4:2E:59:VAL:HG12	2.01	0.43
4:2E:181:LEU:HD12	4:2E:181:LEU:HA	1.83	0.43
32:2a:1305:G:H5'	52:2u:4:GLY:HA3	2.01	0.43
32:2a:1312:G:H5'	50:2s:5:LEU:HD21	2.01	0.43
32:2a:1366:C:H2'	32:2a:1367:C:C6	2.54	0.43
41:2j:13:HIS:HB3	41:2j:68:HIS:CE1	2.53	0.43
44:2m:65:LYS:C	44:2m:66:LEU:HG	2.42	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:2s:41:VAL:HG13	50:2s:43:GLU:N	2.30	0.43
1:1A:244:A:C2	1:1A:255:A:C4	3.07	0.43
1:1A:1230:C:H2'	1:1A:1231:G:C8	2.54	0.43
1:1A:1697:G:OP2	1:1A:1698:A:O2'	2.33	0.43
1:1A:1826:G:H4'	3:1D:242:ARG:NH1	2.33	0.43
61:1A:5452:HOH:O	5:1F:74:ARG:HG3	2.19	0.43
6:1G:28:VAL:O	6:1G:31:VAL:HG13	2.18	0.43
7:1H:98:LEU:HD13	7:1H:125:VAL:HG23	2.00	0.43
14:1S:10:ARG:O	14:1S:14:VAL:HG13	2.18	0.43
14:1S:67:ARG:HG2	14:1S:71:ARG:CZ	2.49	0.43
20:1Y:56:PRO:C	20:1Y:58:GLY:H	2.27	0.43
32:1a:645:C:H2'	32:1a:646:U:C6	2.54	0.43
33:1b:24:TRP:CD1	33:1b:24:TRP:H	2.37	0.43
37:1f:30:LEU:O	37:1f:35:ALA:N	2.41	0.43
43:1l:53:ARG:HD2	43:1l:93:LEU:HG	2.01	0.43
44:1m:5:ALA:HB1	44:1m:61:GLU:HG2	2.00	0.43
50:1s:36:ARG:NH1	50:1s:53:ASN:HA	2.34	0.43
53:1y:85:LEU:O	53:1y:89:GLN:HG2	2.19	0.43
1:2A:523:C:O2	1:2A:554:U:O2'	2.31	0.43
1:2A:624:C:O2'	1:2A:657:U:OP1	2.34	0.43
1:2A:706:A:H2'	1:2A:707:G:O4'	2.19	0.43
1:2A:828:U:H4'	1:2A:831:G:N1	2.34	0.43
1:2A:2304:G:H22	1:2A:2312:U:H3	1.67	0.43
1:2A:2602:A:H1'	1:2A:2603:G:C5'	2.33	0.43
4:2E:4:ILE:HD13	4:2E:28:ALA:HB1	2.01	0.43
4:2E:174:ASP:OD1	4:2E:175:VAL:N	2.51	0.43
8:2I:69:LYS:HA	8:2I:138:ILE:HG12	2.00	0.43
8:2I:101:LEU:HB3	8:2I:107:VAL:O	2.19	0.43
9:2N:4:TYR:CZ	9:2N:6:PRO:HA	2.54	0.43
11:2P:86:LYS:HB3	11:2P:118:GLY:HA3	2.01	0.43
28:26:11:LEU:HB2	28:26:21:TYR:HB2	1.99	0.43
32:2a:874:G:H2'	32:2a:875:C:C6	2.54	0.43
33:2b:178:ARG:HH22	39:2h:68:ARG:HH22	1.65	0.43
40:2i:125:TYR:CE1	40:2i:127:LYS:HB3	2.54	0.43
1:1A:724:U:H2'	1:1A:725:G:O4'	2.18	0.43
1:1A:801:G:O6	5:1F:53:THR:OG1	2.36	0.43
1:1A:1071:G:H1'	1:1A:1089:G:H2'	2.00	0.43
1:1A:1244:G:O5'	11:1P:7:ARG:HG2	2.19	0.43
1:1A:1495:A:C6	1:1A:1496:A:C6	3.07	0.43
1:1A:1802:A:N1	1:1A:1822:G:H1'	2.34	0.43
15:1T:127:ALA:O	15:1T:128:GLU:CB	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:1Y:53:PRO:O	20:1Y:56:PRO:HD3	2.18	0.43
28:16:33:LYS:HA	28:16:33:LYS:HD3	1.90	0.43
32:1a:377:G:P	47:1p:3:LYS:HZ3	2.42	0.43
32:1a:922:G:H4'	36:1e:20:GLN:HA	2.01	0.43
34:1c:68:VAL:O	34:1c:104:GLN:N	2.45	0.43
39:1h:25:ASP:OD1	39:1h:25:ASP:N	2.52	0.43
44:1m:13:LYS:C	44:1m:44:ARG:HD3	2.43	0.43
1:2A:966:G:H2'	1:2A:967:C:C6	2.54	0.43
1:2A:1810:A:H2'	1:2A:1811:G:O4'	2.18	0.43
1:2A:2006:C:H6	1:2A:2006:C:O5'	2.02	0.43
6:2G:105:LYS:NZ	6:2G:143:GLU:OE2	2.31	0.43
32:2a:1001:A:H2'	32:2a:1001(A):G:C8	2.54	0.43
32:2a:1029:C:N4	32:2a:1030(A):G:O6	2.51	0.43
32:2a:1157:A:C5	32:2a:1181:G:C6	3.06	0.43
32:2a:1198:G:H5''	61:2a:3207:HOH:O	2.19	0.43
33:2b:230:VAL:HG13	33:2b:231:GLU:O	2.19	0.43
34:2c:54:ARG:HB2	34:2c:69:HIS:HB2	2.00	0.43
1:1A:2143:C:N3	1:1A:2148:G:C6	2.87	0.43
1:1A:2836:U:C4	1:1A:2883:A:N6	2.86	0.43
3:1D:73:VAL:HG13	3:1D:120:GLY:HA3	2.01	0.43
7:1H:84:SER:HA	7:1H:133:VAL:O	2.19	0.43
32:1a:179:A:H2'	32:1a:180:U:H6	1.84	0.43
44:1m:3:ARG:CG	44:1m:4:ILE:H	2.31	0.43
1:2A:271(D):G:H2'	1:2A:271(E):U:C6	2.53	0.43
1:2A:494:G:H3'	61:2A:3789:HOH:O	2.19	0.43
2:2B:83:G:H1	2:2B:94:C:N4	2.15	0.43
5:2F:53:THR:HG22	5:2F:54:ARG:N	2.33	0.43
7:2H:26:VAL:HG12	7:2H:79:VAL:HG11	2.00	0.43
32:2a:25:C:H5'	32:2a:524:G:H1'	2.01	0.43
32:2a:674:G:H2'	32:2a:675:A:C8	2.53	0.43
32:2a:1070:U:H2'	32:2a:1071:C:C6	2.53	0.43
35:2d:127:THR:HG22	35:2d:132:ARG:HA	2.00	0.43
40:2i:16:ARG:NH2	40:2i:18:PHE:HZ	2.16	0.43
1:1A:196:A:H2'	1:1A:196:A:N3	2.33	0.43
1:1A:1289:C:H2'	1:1A:1290:C:C6	2.54	0.43
1:1A:1668:A:H4'	1:1A:1669:A:O5'	2.18	0.43
1:1A:1796:U:H2'	1:1A:1797:C:H6	1.81	0.43
1:1A:2096:U:H2'	1:1A:2097:C:C6	2.53	0.43
1:1A:2314:C:H5'	6:1G:38:VAL:HG11	2.01	0.43
5:1F:8:GLN:NE2	5:1F:21:ALA:HB2	2.34	0.43
8:1I:101:LEU:HD23	8:1I:101:LEU:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:129:THR:HG22	8:1I:139:GLN:OE1	2.18	0.43
11:1P:121:LYS:O	11:1P:123:LEU:N	2.47	0.43
26:14:67:TYR:HD1	50:1s:16:LEU:HD21	1.83	0.43
32:1a:134:A:H61	47:1p:25:ARG:NH1	2.16	0.43
32:1a:346:G:N2	57:1a:1882:MPD:O4	2.50	0.43
32:1a:503:C:H2'	32:1a:504:C:H6	1.84	0.43
32:1a:715:A:H2'	32:1a:716:A:C8	2.54	0.43
32:1a:1047:G:O2'	32:1a:1215:G:O2'	2.32	0.43
32:1a:1137:C:H5'	32:1a:1138:G:C5	2.54	0.43
32:1a:1441:G:H4'	32:1a:1442:G:C4	2.54	0.43
51:1t:100:ILE:H	51:1t:100:ILE:HG12	1.60	0.43
1:2A:271(O):C:H2'	1:2A:271(P):C:C6	2.54	0.43
1:2A:271(V):G:C6	1:2A:271(W):G:C4	3.07	0.43
1:2A:391:G:H1'	1:2A:411:G:O4'	2.19	0.43
1:2A:511:U:H4'	1:2A:1235:G:H4'	2.00	0.43
1:2A:1015:G:O2'	1:2A:1016:G:H5'	2.19	0.43
1:2A:1288:U:O4	13:2R:106:GLY:HA3	2.19	0.43
1:2A:2556:C:H2'	1:2A:2557:G:O4'	2.18	0.43
2:2B:75:G:H4'	21:2Z:36:LYS:HG2	2.01	0.43
10:2O:73:ASP:HB2	15:2T:82:LEU:HD13	2.01	0.43
14:2S:77:ALA:HA	14:2S:80:LEU:HD13	2.01	0.43
21:2Z:59:LEU:O	21:2Z:61:LEU:HD12	2.19	0.43
23:21:67:ILE:N	23:21:68:PRO:HD2	2.34	0.43
32:2a:116:A:H61	32:2a:313:A:H1'	1.84	0.43
32:2a:684:A:C6	32:2a:685:G:C6	3.06	0.43
32:2a:934:C:OP1	61:2a:3225:HOH:O	2.21	0.43
32:2a:1124:G:H4'	32:2a:1125:U:OP1	2.18	0.43
35:2d:182:LYS:HE2	35:2d:182:LYS:HB3	1.88	0.43
35:2d:201:GLN:NE2	36:2e:99:GLY:HA2	2.34	0.43
41:2j:62:HIS:HB3	45:2n:59:ALA:HB3	2.01	0.43
43:2l:33:ARG:O	43:2l:84:LEU:HD12	2.19	0.43
48:2q:12:SER:HB3	48:2q:20:THR:HB	2.01	0.43
50:2s:41:VAL:HG22	50:2s:42:PRO:HD2	1.99	0.43
1:1A:715:G:C2	46:1o:56:LEU:HD21	2.54	0.42
1:1A:1428:C:O2'	1:1A:1569:A:OP2	2.30	0.42
1:1A:1790:C:H2'	1:1A:1791:A:C5	2.53	0.42
1:1A:2814:C:O2'	27:15:29:THR:HG21	2.19	0.42
7:1H:12:PRO:O	7:1H:15:VAL:HG13	2.19	0.42
9:1N:21:LYS:NZ	9:1N:140:VAL:OXT	2.52	0.42
13:1R:60:LEU:O	13:1R:64:ARG:HG3	2.19	0.42
32:1a:314:C:OP2	61:1a:1922:HOH:O	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:495:A:H4'	32:1a:496:A:OP1	2.18	0.42
32:1a:1276:G:H2'	32:1a:1277:C:O4'	2.19	0.42
32:1a:1328:C:OP1	52:1u:21:TYR:OH	2.32	0.42
35:1d:188:LEU:HD23	35:1d:188:LEU:HA	1.78	0.42
40:1i:54:ASP:OD1	40:1i:54:ASP:N	2.52	0.42
53:1y:10:MET:HE2	53:1y:10:MET:HB3	1.89	0.42
1:2A:297:C:H2'	1:2A:298:G:O4'	2.19	0.42
1:2A:373:U:H2'	1:2A:374:A:H8	1.83	0.42
1:2A:1372:U:H2'	1:2A:1373:A:H5'	2.01	0.42
1:2A:2366:A:H2'	1:2A:2367:G:O4'	2.19	0.42
1:2A:2459:A:OP2	61:2A:3793:HOH:O	2.22	0.42
1:2A:2629:A:H1'	1:2A:2630:G:H5''	2.01	0.42
8:2I:78:THR:H	8:2I:104:GLN:HE22	1.66	0.42
15:2T:109:GLU:HG2	15:2T:112:ARG:HH22	1.83	0.42
32:2a:292:G:O2'	32:2a:608:A:N6	2.52	0.42
32:2a:406:G:N2	35:2d:119:GLN:HE22	2.14	0.42
32:2a:828:A:H2'	32:2a:829:G:O4'	2.18	0.42
32:2a:857:C:H2'	32:2a:858:G:O4'	2.19	0.42
32:2a:1005:A:OP1	32:2a:1006:C:N4	2.52	0.42
32:2a:1250:A:H2'	32:2a:1251:A:O4'	2.18	0.42
39:2h:37:ARG:NH2	39:2h:118:VAL:O	2.50	0.42
46:2o:29:VAL:O	46:2o:33:THR:OG1	2.34	0.42
52:2u:5:ASP:O	52:2u:8:THR:OG1	2.37	0.42
1:1A:391:G:H1'	1:1A:411:G:O4'	2.19	0.42
1:1A:478:A:C6	1:1A:480:A:C6	3.06	0.42
1:1A:652(U):G:H3'	1:1A:652(V):C:C6	2.54	0.42
1:1A:1002:G:H2'	1:1A:1003:G:O4'	2.19	0.42
1:1A:2889:C:H2'	1:1A:2891:G:O4'	2.19	0.42
55:1A:4026:HGR:C16	55:1A:4026:HGR:H3	2.49	0.42
6:1G:50:ALA:C	6:1G:52:ILE:N	2.77	0.42
6:1G:144:ILE:HG23	6:1G:148:MET:HE2	2.01	0.42
7:1H:20:ALA:HB1	7:1H:21:PRO:HD2	1.99	0.42
10:1O:118:ALA:O	57:1a:1882:MPD:H12	2.19	0.42
10:1O:122:LEU:HD13	15:1T:72:VAL:HG11	2.01	0.42
11:1P:43:GLY:HA3	61:1P:302:HOH:O	2.18	0.42
32:1a:595:G:N3	32:1a:596:C:N4	2.67	0.42
32:1a:1318:A:H1'	50:1s:37:ARG:NH2	2.34	0.42
36:1e:20:GLN:HE22	36:1e:25:ARG:HD2	1.84	0.42
36:1e:68:GLU:H	36:1e:68:GLU:HG2	1.70	0.42
39:1h:110:ALA:HB3	39:1h:121:ASP:HB3	2.00	0.42
44:1m:59:TYR:CE1	44:1m:63:THR:HG21	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:185:U:H2'	1:2A:186:G:C8	2.54	0.42
1:2A:574:C:N3	4:2E:145:LYS:NZ	2.44	0.42
1:2A:590:A:H2'	1:2A:591:C:C6	2.54	0.42
1:2A:642:G:O2'	1:2A:644:A:N7	2.49	0.42
1:2A:1266:G:O5'	18:2W:15:ARG:NH2	2.52	0.42
1:2A:1319:G:C6	1:2A:1320:C:N4	2.88	0.42
1:2A:2057:A:H2'	1:2A:2058:MA6:O4'	2.19	0.42
1:2A:2185:C:H5'	1:2A:2186:G:OP2	2.19	0.42
1:2A:2273:A:H2'	1:2A:2274:A:C8	2.54	0.42
1:2A:2371:G:O2'	28:26:46:HIS:ND1	2.48	0.42
1:2A:2377:A:H2'	1:2A:2378:A:C8	2.54	0.42
1:2A:2468:G:C2	1:2A:2481:G:N3	2.87	0.42
5:2F:13:SER:HB2	5:2F:127:GLU:OE1	2.19	0.42
9:2N:16:ILE:HD13	9:2N:52:VAL:HG13	2.01	0.42
12:2Q:137:TYR:O	12:2Q:141:GLN:HG2	2.19	0.42
21:2Z:54:HIS:HB2	21:2Z:55:HIS:CD2	2.54	0.42
32:2a:952:U:H4'	32:2a:964:A:N1	2.34	0.42
32:2a:978:A:H61	32:2a:1316:G:H1'	1.83	0.42
33:2b:101:MET:HA	33:2b:108:ILE:HG13	2.01	0.42
34:2c:112:SER:OG	34:2c:115:LEU:HB2	2.19	0.42
36:2e:11:ILE:HG21	36:2e:105:VAL:HG22	2.01	0.42
1:1A:729:G:C6	3:1D:208:LYS:HB2	2.54	0.42
1:1A:875:G:H2'	1:1A:876:C:O4'	2.19	0.42
1:1A:1059:G:N7	1:1A:1060:U:N3	2.67	0.42
1:1A:1098:A:C8	1:1A:1099:G:C8	3.07	0.42
1:1A:1866:C:H2'	1:1A:1876:A:O4'	2.19	0.42
2:1B:2:C:H2'	2:1B:3:C:C6	2.55	0.42
7:1H:98:LEU:HD12	7:1H:98:LEU:HA	1.85	0.42
21:1Z:3:TYR:CE2	21:1Z:51:ALA:HB2	2.54	0.42
22:10:10:THR:HA	61:10:217:HOH:O	2.18	0.42
32:1a:176:C:O2'	32:1a:177:C:H5'	2.19	0.42
32:1a:235:C:H2'	32:1a:236:G:H8	1.83	0.42
32:1a:430:A:H4'	35:1d:7:PRO:HG3	2.01	0.42
32:1a:625:G:H4'	47:1p:16:HIS:CG	2.55	0.42
32:1a:1347:G:N2	32:1a:1374:A:O5'	2.48	0.42
39:1h:29:SER:O	39:1h:33:GLU:HG3	2.18	0.42
44:1m:36:LYS:HG3	44:1m:59:TYR:CZ	2.54	0.42
1:2A:105:C:H2'	1:2A:106:C:H6	1.84	0.42
1:2A:212:G:H2'	1:2A:213:A:O4'	2.19	0.42
1:2A:652(D):C:H42	1:2A:652(U):G:H1	1.66	0.42
1:2A:1057:A:N6	1:2A:1087:G:OP1	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:1539:G:H2'	1:2A:1540:U:H6	1.84	0.42
1:2A:2352:A:N6	1:2A:2365:G:O2'	2.52	0.42
1:2A:2887:U:H2'	1:2A:2888:C:H6	1.84	0.42
56:2A:3672:ERY:H321	56:2A:3672:ERY:H8	1.66	0.42
6:2G:112:PRO:HG3	26:24:43:TYR:CE2	2.54	0.42
6:2G:173:LEU:HD13	6:2G:173:LEU:HA	1.69	0.42
18:2W:18:ARG:NH1	18:2W:76:VAL:O	2.53	0.42
23:21:12:PRO:HB3	23:21:43:TYR:HD1	1.84	0.42
26:24:1:MET:HE2	26:24:6:HIS:CE1	2.54	0.42
32:2a:406:G:H21	35:2d:119:GLN:NE2	2.13	0.42
32:2a:1145:C:H4'	32:2a:1146:A:H8	1.84	0.42
32:2a:1321:C:H4'	44:2m:87:TYR:CE2	2.55	0.42
33:2b:86:GLU:C	33:2b:88:ALA:H	2.26	0.42
36:2e:78:HIS:HD2	39:2h:107:LEU:HD12	1.83	0.42
38:2g:90:GLU:OE1	38:2g:90:GLU:N	2.53	0.42
40:2i:75:ASP:O	40:2i:78:LYS:HG3	2.18	0.42
42:2k:34:ASP:HB3	42:2k:40:ILE:HD11	2.01	0.42
43:2l:79:GLU:HG2	43:2l:80:HIS:CE1	2.54	0.42
1:1A:747:U:H1'	18:1W:92:ARG:NH1	2.33	0.42
1:1A:881:G:H2'	1:1A:882:G:O4'	2.19	0.42
1:1A:1131:G:H21	9:1N:73:THR:HG21	1.84	0.42
1:1A:1176:G:N2	1:1A:1178:C:OP2	2.53	0.42
1:1A:1523:U:H6	1:1A:1523:U:O5'	2.02	0.42
1:1A:1540:U:H2'	1:1A:1541:G:O4'	2.19	0.42
1:1A:2184:G:H2'	1:1A:2185:C:H6	1.85	0.42
1:1A:2607:G:H2'	1:1A:2608:G:O4'	2.19	0.42
1:1A:2674:G:H5''	10:1O:26:LYS:HE3	2.00	0.42
2:1B:28:C:OP1	14:1S:36:TYR:OH	2.33	0.42
9:1N:9:VAL:HG21	9:1N:39:ARG:HH22	1.85	0.42
32:1a:448:A:H2'	32:1a:449:C:C6	2.54	0.42
32:1a:958:A:C5	50:1s:55:LYS:HD2	2.54	0.42
32:1a:1289:A:P	52:1u:10:ARG:HH22	2.42	0.42
32:1a:1353:G:OP1	52:1u:10:ARG:NH1	2.47	0.42
36:1e:79:GLU:HB3	36:1e:92:LYS:HG3	2.01	0.42
39:1h:55:GLY:C	39:1h:56:LYS:HD2	2.44	0.42
46:1o:29:VAL:HB	46:1o:81:LEU:HD21	2.00	0.42
48:1q:26:GLN:HE21	48:1q:26:GLN:HB2	1.57	0.42
50:1s:12:ASP:OD2	50:1s:35:SER:HB3	2.19	0.42
53:1y:24:LEU:HD23	53:1y:24:LEU:HA	1.90	0.42
1:2A:322:A:OP1	5:2F:168:ARG:HD3	2.18	0.42
1:2A:415:A:H2'	1:2A:416:C:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:471:A:H8	1:2A:471:A:O5'	2.02	0.42
1:2A:644:A:C2	1:2A:2369:A:H1'	2.54	0.42
1:2A:947:G:N2	1:2A:971:C:C2	2.88	0.42
1:2A:2104:G:N7	1:2A:2186:G:C2	2.87	0.42
1:2A:2141:G:H2'	1:2A:2142:C:O4'	2.18	0.42
1:2A:2637:U:OP1	4:2E:82:ARG:NH1	2.52	0.42
1:2A:2786:U:H2'	1:2A:2787:C:C6	2.54	0.42
4:2E:56:PRO:C	4:2E:58:ARG:H	2.27	0.42
7:2H:149:ARG:HD3	7:2H:164:TYR:CE1	2.54	0.42
9:2N:62:VAL:CG1	9:2N:66:LYS:HB2	2.49	0.42
10:2O:19:ILE:HB	10:2O:41:ALA:HB1	2.01	0.42
16:2U:91:ASP:O	16:2U:95:LEU:HG	2.19	0.42
32:2a:57:G:C2	32:2a:58:C:C2	3.08	0.42
32:2a:160:A:H61	32:2a:347:G:H1'	1.83	0.42
32:2a:545:C:OP1	35:2d:61:LYS:NZ	2.52	0.42
32:2a:947:G:O3'	44:2m:109:THR:OG1	2.36	0.42
32:2a:971:G:N2	32:2a:1363(A):A:OP2	2.52	0.42
34:2c:115:LEU:HD12	34:2c:115:LEU:HA	1.80	0.42
38:2g:45:ASP:O	38:2g:49:ILE:HG13	2.19	0.42
40:2i:112:LYS:HE2	40:2i:117:HIS:O	2.19	0.42
1:1A:64:A:O3'	19:1X:71:GLY:HA3	2.19	0.42
1:1A:274:G:H2'	1:1A:275:G:C8	2.54	0.42
1:1A:1594:G:H2'	1:1A:1595:G:O4'	2.18	0.42
3:1D:71:ASP:HB3	3:1D:103:ARG:NH2	2.33	0.42
10:1O:26:LYS:O	10:1O:30:ALA:HB2	2.19	0.42
16:1U:79:PHE:CZ	16:1U:83:LEU:HD11	2.55	0.42
16:1U:86:ALA:O	17:1V:49:THR:HG23	2.20	0.42
17:1V:1:MET:HE2	17:1V:43:GLU:OE1	2.19	0.42
21:1Z:183:LEU:HA	21:1Z:183:LEU:HD23	1.83	0.42
28:16:11:LEU:HD23	28:16:11:LEU:HA	1.90	0.42
32:1a:750:G:N3	46:1o:23:GLY:HA3	2.34	0.42
32:1a:1178:G:OP1	40:1i:93:ARG:NE	2.52	0.42
32:1a:1309:G:OP2	44:1m:99:ARG:NH2	2.38	0.42
32:1a:1366:C:H2'	32:1a:1367:C:C6	2.54	0.42
32:1a:1438:G:H2'	32:1a:1439:C:C6	2.54	0.42
44:1m:16:ASP:OD1	44:1m:16:ASP:N	2.52	0.42
1:2A:814:C:C2'	1:2A:815:C:H5'	2.49	0.42
1:2A:1354:A:H2'	1:2A:1355:G:O4'	2.19	0.42
1:2A:1581:G:H2'	1:2A:1582:C:O4'	2.19	0.42
1:2A:2080:G:H5'	23:21:35:THR:O	2.20	0.42
1:2A:2186:G:C2	1:2A:2187:G:C5	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2286:A:H4'	1:2A:2287:A:O4'	2.20	0.42
1:2A:2615:U:H2'	1:2A:2616:C:C6	2.54	0.42
9:2N:4:TYR:CD2	16:2U:100:VAL:HG11	2.54	0.42
32:2a:555:C:H2'	32:2a:556:C:C6	2.54	0.42
32:2a:738:C:OP2	37:2f:92:LYS:HD2	2.19	0.42
32:2a:1226:C:H4'	50:2s:80:TYR:CZ	2.54	0.42
32:2a:1292:U:C2	32:2a:1293:G:C8	3.08	0.42
33:2b:27:LYS:HB2	33:2b:194:PRO:HD2	2.00	0.42
33:2b:171:ALA:HA	33:2b:174:VAL:HG22	2.00	0.42
34:2c:32:LEU:HG	34:2c:59:ARG:NH1	2.35	0.42
37:2f:11:ASN:HB3	37:2f:14:LEU:HG	2.00	0.42
37:2f:76:ALA:O	37:2f:80:ARG:HG3	2.19	0.42
38:2g:108:ALA:O	38:2g:119:ARG:HD2	2.19	0.42
49:2r:70:ILE:O	49:2r:74:ARG:HG3	2.19	0.42
1:1A:534:U:H2'	1:1A:535:C:C6	2.55	0.42
1:1A:968:G:N7	61:1A:4385:HOH:O	2.37	0.42
1:1A:1071:G:N3	1:1A:1089:G:O2'	2.45	0.42
1:1A:1174:A:H4'	1:1A:1175:U:OP1	2.20	0.42
1:1A:1495:A:H1'	1:1A:1579:A:H5''	2.02	0.42
1:1A:1859:A:H2'	1:1A:1860:G:O4'	2.20	0.42
1:1A:2000:G:OP1	13:1R:5:LYS:NZ	2.51	0.42
1:1A:2144:U:H2'	1:1A:2147:G:O6	2.19	0.42
1:1A:2774:C:H2'	1:1A:2775:A:O4'	2.20	0.42
61:1A:5991:HOH:O	25:13:24:LYS:HD2	2.19	0.42
2:1B:88:C:H2'	2:1B:89:G:O4'	2.20	0.42
7:1H:117:PRO:HG3	7:1H:123:PHE:CD2	2.55	0.42
9:1N:61:ARG:HD3	9:1N:61:ARG:HA	1.81	0.42
11:1P:6:LEU:HA	11:1P:6:LEU:HD23	1.77	0.42
21:1Z:182:LYS:HE2	21:1Z:182:LYS:HB3	1.76	0.42
28:16:47:THR:HG22	28:16:48:VAL:O	2.19	0.42
32:1a:567:G:H2'	32:1a:568:G:O4'	2.19	0.42
32:1a:1028:C:H3'	32:1a:1028:C:H6	1.84	0.42
32:1a:1166:G:H5'	32:1a:1168:A:OP2	2.20	0.42
32:1a:1176:A:H2'	32:1a:1177:G:C8	2.55	0.42
40:1i:17:VAL:HB	40:1i:63:ILE:HG12	2.01	0.42
48:1q:53:LEU:HD23	48:1q:82:MET:SD	2.60	0.42
1:2A:76:C:O3'	24:22:59:ARG:HG3	2.19	0.42
1:2A:801:G:N7	5:2F:53:THR:HG21	2.35	0.42
1:2A:1657:C:H2'	1:2A:1658:C:H6	1.85	0.42
56:2A:3672:ERY:H5	56:2A:3672:ERY:O4	2.20	0.42
5:2F:133:ASN:O	5:2F:162:LEU:HD23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:2R:2:ARG:NH1	13:2R:5:LYS:O	2.53	0.42
15:2T:23:ARG:HD3	15:2T:120:ARG:NH1	2.34	0.42
32:2a:928:G:O2'	32:2a:1533:C:OP1	2.37	0.42
32:2a:1090:U:H2'	32:2a:1091:U:H6	1.85	0.42
33:2b:31:TYR:O	33:2b:42:ILE:HG23	2.20	0.42
52:2u:6:ARG:C	52:2u:8:THR:H	2.27	0.42
1:1A:24:G:O2'	18:1W:77:ASP:HB3	2.20	0.42
1:1A:184:C:H2'	1:1A:185:U:H6	1.83	0.42
1:1A:278:A:N6	1:1A:362:U:O4	2.53	0.42
1:1A:2112:G:H8	1:1A:2112:G:OP2	2.02	0.42
1:1A:2114:A:O2'	1:1A:2167:U:O3'	2.28	0.42
1:1A:2207:G:H2'	1:1A:2208:A:C2	2.54	0.42
1:1A:2646:C:OP2	1:1A:2732:G:O2'	2.29	0.42
56:1A:4027:ERY:H2	56:1A:4027:ERY:H312	1.71	0.42
4:1E:179:GLU:HB2	4:1E:181:LEU:HD22	2.00	0.42
4:1E:181:LEU:HD11	15:1T:6:LEU:HD23	2.01	0.42
5:1F:65:TRP:CZ2	5:1F:75:HIS:HD2	2.37	0.42
8:1I:72:LEU:O	8:1I:73:GLU:HB2	2.20	0.42
9:1N:65:LYS:HE2	9:1N:65:LYS:HB2	1.88	0.42
21:1Z:35:ARG:HD2	21:1Z:35:ARG:HA	1.84	0.42
24:12:50:ILE:O	24:12:54:LYS:HG3	2.20	0.42
27:15:49:CYS:SG	27:15:51:TYR:HB2	2.59	0.42
28:16:6:ARG:NE	28:16:24:GLU:OE2	2.32	0.42
32:1a:341:C:H2'	32:1a:342:C:C6	2.55	0.42
33:1b:189:ASP:OD1	33:1b:189:ASP:N	2.40	0.42
34:1c:71:ALA:O	34:1c:73:PRO:HD3	2.19	0.42
40:1i:82:ALA:O	40:1i:86:VAL:HG23	2.19	0.42
45:1n:23:ARG:NH1	45:1n:30:ALA:HB2	2.35	0.42
47:1p:5:ARG:HB3	47:1p:67:THR:HG23	2.02	0.42
52:1u:3:LYS:HB3	52:1u:14:TRP:CD1	2.55	0.42
1:2A:2037:G:H2'	1:2A:2038:G:C8	2.54	0.42
1:2A:2526:G:H2'	1:2A:2527:C:C6	2.54	0.42
1:2A:2573:C:H3'	61:2A:3942:HOH:O	2.19	0.42
3:2D:4:LYS:HE2	3:2D:4:LYS:HB3	1.69	0.42
3:2D:145:VAL:HG12	3:2D:146:GLU:O	2.19	0.42
6:2G:101:ILE:HD13	26:24:25:TYR:HB2	2.01	0.42
8:2I:26:ALA:HA	8:2I:30:LEU:HB2	2.02	0.42
23:21:41:ARG:HD3	23:21:43:TYR:OH	2.19	0.42
26:24:59:PHE:CZ	50:2s:64:GLU:HB2	2.55	0.42
32:2a:603:U:H2'	32:2a:604:G:C8	2.54	0.42
32:2a:1092:A:C6	32:2a:1183:A:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2a:1271:G:H5'	32:2a:1314:C:H5''	2.02	0.42
32:2a:1397:C:H4'	32:2a:1398:A:OP2	2.20	0.42
33:2b:197:VAL:HG12	33:2b:200:ILE:HG13	2.02	0.42
35:2d:127:THR:HG23	35:2d:149:ALA:HB2	2.01	0.42
37:2f:10:LEU:HD12	37:2f:10:LEU:HA	1.82	0.42
1:1A:307:G:H21	1:1A:330:A:N6	2.12	0.42
1:1A:839:U:H2'	1:1A:840:C:C6	2.55	0.42
1:1A:897:C:H2'	1:1A:898:C:H6	1.81	0.42
1:1A:1452:A:OP2	61:1A:4166:HOH:O	2.21	0.42
1:1A:2298:A:H2'	1:1A:2299:G:O4'	2.19	0.42
1:1A:2317:C:H2'	1:1A:2318:G:O4'	2.20	0.42
1:1A:2627:G:O2'	1:1A:2781:A:N1	2.36	0.42
61:1A:6861:HOH:O	20:1Y:19:LYS:HD3	2.19	0.42
2:1B:48:A:H2'	2:1B:49:C:C6	2.54	0.42
3:1D:242:ARG:HG3	3:1D:242:ARG:HH11	1.85	0.42
4:1E:109:LYS:O	4:1E:111:ARG:NH1	2.49	0.42
19:1X:61:GLY:HA3	19:1X:73:ARG:O	2.20	0.42
20:1Y:4:LYS:NZ	61:1Y:305:HOH:O	2.52	0.42
32:1a:470:C:H4'	32:1a:471:G:OP2	2.20	0.42
38:1g:57:GLU:O	38:1g:61:VAL:HG23	2.20	0.42
38:1g:104:LEU:HA	38:1g:104:LEU:HD13	1.80	0.42
1:2A:65:C:O2'	1:2A:456:C:N3	2.49	0.42
1:2A:218:A:C2	1:2A:235:U:H4'	2.55	0.42
1:2A:271(J):C:O2'	1:2A:271(K):U:H3'	2.19	0.42
1:2A:1861:G:C2	1:2A:1862:G:C8	3.08	0.42
1:2A:2392:A:N3	11:2P:61:ARG:HG2	2.34	0.42
20:2Y:44:ILE:HA	20:2Y:63:LYS:O	2.19	0.42
21:2Z:157:LEU:HD21	21:2Z:163:LEU:HD13	2.01	0.42
26:24:14:ILE:O	26:24:21:VAL:HA	2.19	0.42
32:2a:392:G:OP1	47:2p:8:ARG:NH2	2.52	0.42
32:2a:551:U:H2'	32:2a:552:U:C6	2.53	0.42
33:2b:92:TYR:CE1	33:2b:94:ASN:HB2	2.55	0.42
33:2b:222:ILE:O	33:2b:226:ARG:HB2	2.19	0.42
40:2i:56:LEU:H	40:2i:56:LEU:HD12	1.85	0.42
41:2j:78:ASN:C	41:2j:80:LYS:N	2.78	0.42
1:1A:234:C:H2'	1:1A:235:U:H6	1.85	0.42
1:1A:784:A:C8	1:1A:792:G:C5	3.08	0.42
1:1A:1131:G:H21	9:1N:73:THR:CG2	2.33	0.42
1:1A:1408:C:C2	1:1A:1595:G:N2	2.88	0.42
1:1A:1913:A:C2	32:1a:1493:A:H8	2.37	0.42
1:1A:2139:C:H2'	1:1A:2140:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:154:LYS:HG3	61:1D:419:HOH:O	2.20	0.42
3:1D:206:LEU:HD23	3:1D:206:LEU:HA	1.81	0.42
21:1Z:121:HIS:HB2	21:1Z:171:ILE:HG22	2.01	0.42
31:19:24:TYR:CE1	31:19:35:ARG:HG3	2.54	0.42
32:1a:114:U:H1'	32:1a:353:A:H1'	2.02	0.42
32:1a:189(K):U:H2'	32:1a:189(L):G:H8	1.84	0.42
33:1b:27:LYS:C	33:1b:29:ALA:H	2.26	0.42
53:1y:33:HIS:HB3	53:1y:57:PRO:HD3	2.02	0.42
1:2A:784:A:N6	3:2D:229:VAL:HG11	2.34	0.42
1:2A:861:A:C2	1:2A:917:A:C4	3.08	0.42
1:2A:1747:G:H2'	1:2A:1747(A):G:C8	2.55	0.42
1:2A:1786:A:H1'	1:2A:1938:A:N6	2.35	0.42
1:2A:2058:MA6:H102	1:2A:2059:A:N6	2.34	0.42
1:2A:2128:C:H5'	1:2A:2129:C:OP2	2.20	0.42
1:2A:2251:OMG:H5'	61:2A:5052:HOH:O	2.20	0.42
1:2A:2271:G:OP1	22:20:18:ALA:HB1	2.20	0.42
1:2A:2336:A:H61	22:20:43:THR:CG2	2.32	0.42
1:2A:2643:G:H2'	1:2A:2644:G:O4'	2.20	0.42
1:2A:2786:U:H2'	1:2A:2787:C:H6	1.84	0.42
3:2D:118:VAL:HG12	3:2D:129:ASN:ND2	2.34	0.42
8:2I:62:LYS:HG2	8:2I:133:HIS:NE2	2.35	0.42
10:2O:120:GLU:HB2	15:2T:68:TYR:CE2	2.55	0.42
20:2Y:87:LYS:HB3	20:2Y:95:LYS:HD2	2.01	0.42
21:2Z:52:SER:O	61:2Z:302:HOH:O	2.21	0.42
25:23:6:VAL:HG12	25:23:28:LEU:HD11	2.01	0.42
32:2a:148:G:H2'	32:2a:149:A:C8	2.55	0.42
32:2a:352:C:H4'	32:2a:354:G:OP1	2.20	0.42
32:2a:490:G:H2'	32:2a:491:G:H8	1.84	0.42
32:2a:540:G:C6	32:2a:541:G:C5	3.07	0.42
32:2a:1010:G:H2'	32:2a:1011:G:H8	1.84	0.42
32:2a:1075:C:H5''	33:2b:179:LYS:HE2	2.02	0.42
33:2b:153:ARG:C	33:2b:155:LEU:H	2.27	0.42
35:2d:3:ARG:HH11	35:2d:118:ARG:HD3	1.85	0.42
44:2m:94:ARG:HB3	44:2m:96:LEU:HD12	2.00	0.42
50:2s:18:LYS:O	50:2s:22:LEU:HG	2.20	0.42
53:2y:30:TRP:CD1	53:2y:89:GLN:HG3	2.55	0.42
53:2y:52:ALA:HB1	53:2y:81:LEU:HD11	2.02	0.42
1:1A:493:G:H2'	1:1A:494:G:O4'	2.20	0.42
1:1A:1753:G:N1	1:1A:1756:G:OP2	2.51	0.42
1:1A:2127:G:H22	1:1A:2160:G:H22	1.68	0.42
1:1A:2341:G:H2'	1:1A:2342:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:1D:77:ALA:HB2	3:1D:97:TYR:CD1	2.55	0.42
6:1G:106:LEU:O	6:1G:111:LEU:HG	2.20	0.42
8:1I:29:TYR:C	8:1I:32:PRO:HD2	2.45	0.42
12:1Q:27:VAL:HA	12:1Q:105:GLU:OE2	2.20	0.42
15:1T:37:GLY:HA2	15:1T:38:ASN:HA	1.69	0.42
32:1a:107:G:H2'	32:1a:108:G:O4'	2.20	0.42
32:1a:184:G:O4'	32:1a:224:C:H4'	2.19	0.42
32:1a:909:A:H2'	32:1a:910:C:O4'	2.19	0.42
33:1b:19:HIS:CE1	33:1b:20:GLU:HG3	2.55	0.42
33:1b:211:ILE:HG13	33:1b:211:ILE:H	1.69	0.42
34:1c:134:ILE:HG22	34:1c:168:ALA:HB3	2.02	0.42
39:1h:25:ASP:OD1	39:1h:60:ARG:HG3	2.20	0.42
50:1s:55:LYS:HB2	50:1s:55:LYS:HE3	1.89	0.42
1:2A:135:G:N7	61:2A:3934:HOH:O	2.36	0.42
1:2A:141:A:C6	1:2A:142:A:N1	2.88	0.42
1:2A:286:C:H2'	1:2A:287:C:C6	2.55	0.42
1:2A:1814:G:C4'	3:2D:51:VAL:HG21	2.50	0.42
1:2A:2168:G:H2'	1:2A:2170:A:OP2	2.20	0.42
1:2A:2719:G:O6	61:2A:3784:HOH:O	2.20	0.42
2:2B:12:C:O2'	22:20:74:ARG:HB3	2.19	0.42
2:2B:28:C:H2'	2:2B:29:A:O4'	2.20	0.42
5:2F:74:ARG:HG3	5:2F:74:ARG:H	1.51	0.42
20:2Y:31:LEU:HA	20:2Y:31:LEU:HD23	1.77	0.42
26:24:1:MET:HG2	26:24:6:HIS:NE2	2.35	0.42
32:2a:560:U:H6	32:2a:560:U:H2'	1.47	0.42
32:2a:1126:U:H3	41:2j:40:LEU:HD21	1.85	0.42
32:2a:1188:A:H2'	32:2a:1189:C:O4'	2.20	0.42
34:2c:21:ARG:HH12	34:2c:58:GLU:HG2	1.85	0.42
35:2d:122:ARG:HA	35:2d:122:ARG:HD2	1.46	0.42
36:2e:7:GLU:HB3	36:2e:112:LEU:HD22	2.02	0.42
38:2g:26:PHE:CE2	38:2g:30:ILE:HD11	2.55	0.42
39:2h:14:ARG:HH11	39:2h:83:ILE:HG23	1.84	0.42
41:2j:35:SER:HB3	41:2j:73:ASP:O	2.19	0.42
47:2p:43:LYS:HG2	47:2p:48:TRP:CD2	2.55	0.42
51:2t:49:ALA:HB1	51:2t:98:PRO:HA	2.02	0.42
1:1A:236:C:H2'	1:1A:237:C:C6	2.54	0.41
1:1A:2805:G:H2'	1:1A:2807:G:C8	2.51	0.41
3:1D:33:LEU:HD23	3:1D:33:LEU:HA	1.88	0.41
3:1D:186:HIS:HB2	61:1D:502:HOH:O	2.19	0.41
8:1I:76:THR:O	8:1I:105:HIS:HE1	2.03	0.41
32:1a:339:C:H2'	32:1a:340:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:878:G:H1'	39:1h:3:THR:HG21	2.02	0.41
32:1a:1072:G:C5	32:1a:1073:U:C4	3.08	0.41
32:1a:1446:U:O2'	32:1a:1447:A:H3'	2.20	0.41
42:1k:103:LEU:HD23	42:1k:103:LEU:HA	1.90	0.41
44:1m:40:ASN:ND2	44:1m:42:ALA:HB3	2.35	0.41
1:2A:108:U:H2'	1:2A:109:G:H8	1.85	0.41
1:2A:271(R):G:H5''	23:21:97:LEU:HD21	2.02	0.41
1:2A:1009:A:N3	1:2A:1153:C:O2'	2.52	0.41
1:2A:1290:C:H2'	1:2A:1291:C:H6	1.85	0.41
1:2A:1718:G:H2'	1:2A:1719:G:C8	2.55	0.41
1:2A:1865:G:N2	1:2A:1877:A:OP2	2.49	0.41
6:2G:3:LEU:HD23	6:2G:3:LEU:H	1.85	0.41
8:2I:101:LEU:HD11	8:2I:140:LEU:HD11	2.02	0.41
11:2P:135:LEU:HD23	11:2P:135:LEU:HA	1.83	0.41
17:2V:97:LYS:HD3	17:2V:97:LYS:HA	1.76	0.41
21:2Z:40:ASP:OD2	21:2Z:43:GLU:N	2.49	0.41
32:2a:57:G:H2'	32:2a:58:C:C6	2.54	0.41
32:2a:189(K):U:H2'	32:2a:189(L):G:C8	2.55	0.41
32:2a:620:C:C2	35:2d:135:LEU:HG	2.54	0.41
32:2a:1501:C:OP1	32:2a:1508:G:H4'	2.20	0.41
34:2c:26:LYS:HE2	34:2c:26:LYS:HB3	1.86	0.41
35:2d:25:ARG:NH1	35:2d:30:LYS:O	2.53	0.41
43:2l:25:PRO:O	43:2l:28:LYS:HE2	2.20	0.41
44:2m:4:ILE:O	44:2m:6:GLY:N	2.51	0.41
50:2s:81:ARG:HB2	50:2s:81:ARG:NH1	2.35	0.41
1:1A:2133:G:N2	1:1A:2158:A:N3	2.59	0.41
1:1A:2134:A:N6	1:1A:2157:G:H4'	2.35	0.41
3:1D:70:TRP:HB3	3:1D:190:TYR:CE2	2.55	0.41
11:1P:86:LYS:HE3	11:1P:86:LYS:HB2	1.92	0.41
19:1X:94:GLY:HA3	19:1X:95:LEU:C	2.45	0.41
32:1a:738:C:H2'	32:1a:739:C:C6	2.55	0.41
32:1a:1005:A:H8	32:1a:1005:A:O5'	2.03	0.41
32:1a:1429:C:H2'	32:1a:1430:C:C6	2.55	0.41
33:1b:69:LEU:HD13	33:1b:91:PRO:HB2	2.02	0.41
36:1e:32:VAL:HB	36:1e:58:ALA:HB1	2.00	0.41
39:1h:104:ARG:HD3	39:1h:104:ARG:HA	1.78	0.41
1:2A:287:C:H2'	1:2A:288:C:C6	2.56	0.41
1:2A:862:G:H2'	1:2A:863:A:O4'	2.20	0.41
1:2A:2059:A:N1	56:2A:3672:ERY:H23	2.35	0.41
1:2A:2139:C:N4	1:2A:2152:G:H1	2.16	0.41
1:2A:2531:A:N7	7:2H:175:LYS:HG3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2842:G:H2'	1:2A:2843:G:O4'	2.20	0.41
2:2B:73:A:C4	2:2B:105:A:C2	3.08	0.41
3:2D:108:PRO:HD2	3:2D:111:LEU:HG	2.02	0.41
4:2E:183:LEU:HD21	15:2T:10:VAL:HG11	2.01	0.41
7:2H:3:ARG:HH22	7:2H:65:HIS:HB3	1.85	0.41
7:2H:117:PRO:HG3	7:2H:123:PHE:CE2	2.55	0.41
7:2H:144:VAL:HA	7:2H:147:ASN:HB2	2.02	0.41
12:2Q:137:TYR:HB3	21:2Z:76:LEU:HD11	2.02	0.41
26:24:48:ARG:O	26:24:50:VAL:N	2.51	0.41
32:2a:9:G:H2'	32:2a:10:A:C8	2.55	0.41
32:2a:110:C:O2'	47:2p:25:ARG:HB2	2.20	0.41
32:2a:126:G:H4'	32:2a:634:C:O2	2.20	0.41
32:2a:299:G:O6	61:2a:3219:HOH:O	2.17	0.41
32:2a:1342:C:H2'	32:2a:1343:G:H8	1.85	0.41
35:2d:156:GLU:O	35:2d:160:GLN:HG3	2.20	0.41
36:2e:107:ARG:O	36:2e:111:GLU:N	2.43	0.41
1:1A:478:A:N1	1:1A:500:G:H4'	2.34	0.41
1:1A:1045:A:H1'	1:1A:1047:G:N3	2.35	0.41
1:1A:1179:C:O2'	1:1A:1180:C:H5'	2.20	0.41
1:1A:1266:G:O6	18:1W:13:SER:OG	2.31	0.41
1:1A:1529:G:C6	1:1A:1530:C:C4	3.09	0.41
1:1A:2114:A:H3'	1:1A:2115:G:C8	2.55	0.41
1:1A:2155:G:H2'	1:1A:2156:G:O4'	2.20	0.41
1:1A:2759:G:C2'	1:1A:2760:C:H5'	2.50	0.41
3:1D:71:ASP:OD2	3:1D:103:ARG:NH2	2.44	0.41
4:1E:143:ASN:HD22	4:1E:147:PRO:CD	2.33	0.41
5:1F:172:TRP:CD1	5:1F:172:TRP:H	2.37	0.41
11:1P:106:LEU:HD13	11:1P:112:LEU:HD13	2.02	0.41
15:1T:36:GLU:HB3	15:1T:37:GLY:H	1.62	0.41
32:1a:67:C:H4'	32:1a:172:A:O4'	2.21	0.41
32:1a:166:G:H2'	32:1a:167:G:C8	2.55	0.41
32:1a:757:U:O2'	32:1a:879:C:O2	2.36	0.41
35:1d:58:LEU:HD23	35:1d:206:PHE:CE1	2.55	0.41
35:1d:140:VAL:HG11	35:1d:146:ILE:HD11	2.02	0.41
40:1i:89:ASN:HB3	40:1i:92:TYR:CD2	2.55	0.41
42:1k:70:LYS:HA	42:1k:73:MET:HE2	2.02	0.41
47:1p:4:ILE:HG22	47:1p:19:ILE:HD11	2.01	0.41
48:1q:62:SER:OG	48:1q:72:ARG:HG3	2.20	0.41
49:1r:44:LEU:HD11	49:1r:79:LEU:HD13	2.02	0.41
1:2A:287:C:H2'	1:2A:288:C:H6	1.84	0.41
1:2A:911:A:H2'	12:2Q:9:TYR:OH	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:941:A:H2'	1:2A:942:G:C8	2.55	0.41
1:2A:981:A:H8	1:2A:982:C:C5	2.38	0.41
1:2A:1110:G:H8	1:2A:1110:G:OP2	2.03	0.41
3:2D:24:ILE:HD13	3:2D:84:TYR:HB2	2.00	0.41
7:2H:83:TYR:N	7:2H:135:GLY:O	2.54	0.41
9:2N:103:VAL:HG11	9:2N:120:LEU:HD22	2.02	0.41
21:2Z:10:ARG:NH1	21:2Z:26:GLY:H	2.18	0.41
21:2Z:150:LEU:HD12	21:2Z:150:LEU:HA	1.89	0.41
29:27:5:TRP:CD1	29:27:7:PRO:HD3	2.55	0.41
32:2a:142:G:O2'	32:2a:196:A:N1	2.48	0.41
32:2a:190:U:H2'	32:2a:191:G:O4'	2.20	0.41
32:2a:297:G:N2	32:2a:300:A:OP2	2.46	0.41
32:2a:834:C:H42	32:2a:852:G:H1	1.68	0.41
32:2a:910:C:H2'	32:2a:911:U:O4'	2.20	0.41
32:2a:1106:G:H2'	32:2a:1107:C:H6	1.85	0.41
32:2a:1346:A:H61	32:2a:1374:A:H3'	1.84	0.41
35:2d:100:ARG:NH2	35:2d:102:ASP:OD2	2.52	0.41
35:2d:193:ASP:N	35:2d:193:ASP:OD1	2.51	0.41
42:2k:48:ILE:HG21	42:2k:63:LEU:HD13	2.02	0.41
51:2t:47:GLY:HA2	51:2t:48:LYS:CB	2.49	0.41
1:1A:754:C:H2'	1:1A:755:C:C6	2.56	0.41
1:1A:918:A:H5''	2:1B:98:G:O2'	2.20	0.41
1:1A:1508:A:O2'	1:1A:1509(A):A:C6	2.73	0.41
1:1A:2006:C:O5'	1:1A:2006:C:H6	2.03	0.41
1:1A:2135:A:C2	1:1A:2136:C:H1'	2.55	0.41
1:1A:2406:U:C2	11:1P:72:PRO:HG2	2.55	0.41
1:1A:2849:U:H4'	1:1A:2868:A:C2	2.55	0.41
1:1A:2864:G:OP1	15:1T:119:LYS:HD2	2.20	0.41
6:1G:115:ARG:HB3	6:1G:136:ARG:NH2	2.36	0.41
7:1H:154:PRO:HB3	7:1H:163:TYR:CE1	2.55	0.41
12:1Q:2:LEU:HB2	61:1Q:311:HOH:O	2.20	0.41
14:1S:25:ARG:NH1	14:1S:42:ASP:OD1	2.53	0.41
14:1S:67:ARG:HE	14:1S:67:ARG:HB2	1.68	0.41
21:1Z:4:ARG:NE	21:1Z:60:GLU:OE2	2.36	0.41
23:11:3:LYS:HB3	23:11:4:VAL:H	1.50	0.41
26:14:55:ARG:N	26:14:56:VAL:HA	2.36	0.41
28:16:9:LEU:HD13	28:16:51:GLU:HG3	2.02	0.41
32:1a:431:A:H2'	32:1a:432:A:O4'	2.20	0.41
32:1a:868:C:H2'	32:1a:869:G:O4'	2.20	0.41
32:1a:1056:U:C5'	34:1c:163:ALA:HB2	2.50	0.41
32:1a:1298:C:H4'	32:1a:1299:A:C4	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:1e:60:TYR:O	36:1e:64:ARG:HG3	2.20	0.41
37:1f:92:LYS:HB2	37:1f:92:LYS:HE3	1.86	0.41
48:1q:66:SER:O	48:1q:70:ARG:NH1	2.53	0.41
49:1r:59:SER:OG	49:1r:62:GLU:HG2	2.20	0.41
1:2A:205:G:O6	23:21:39:LYS:NZ	2.27	0.41
1:2A:1056:G:H21	1:2A:1103:A:H62	1.67	0.41
1:2A:1216:G:P	16:2U:12:ARG:HH21	2.42	0.41
1:2A:1270:C:H5''	1:2A:1271:G:O5'	2.21	0.41
1:2A:1557:C:H5''	1:2A:1558:A:OP2	2.20	0.41
1:2A:1831:G:H2'	1:2A:1832:C:C6	2.55	0.41
1:2A:1999:C:H4'	1:2A:2723:C:O2	2.20	0.41
1:2A:2433:A:N6	61:2A:4085:HOH:O	2.48	0.41
4:2E:119:ARG:CG	4:2E:160:TYR:HB2	2.50	0.41
12:2Q:42:ILE:HA	12:2Q:46:GLN:OE1	2.21	0.41
14:2S:105:ALA:O	14:2S:110:LEU:HB2	2.21	0.41
20:2Y:8:LYS:HD3	20:2Y:97:ARG:NH2	2.36	0.41
22:20:51:VAL:HG22	22:20:81:VAL:HG23	2.02	0.41
30:28:52:LYS:HB3	30:28:53:PRO:HD3	2.02	0.41
32:2a:37:U:O2'	32:2a:547:A:N1	2.43	0.41
32:2a:330:C:O2	61:2a:3223:HOH:O	2.20	0.41
32:2a:407:G:OP1	35:2d:115:ARG:NH2	2.54	0.41
32:2a:1326:C:H5''	52:2u:18:TYR:O	2.20	0.41
34:2c:22:TRP:CZ2	45:2n:54:PRO:HG2	2.55	0.41
36:2e:79:GLU:OE1	39:2h:105:ARG:HG2	2.20	0.41
37:2f:68:PRO:HB2	37:2f:71:ARG:HD2	2.02	0.41
41:2j:13:HIS:HB3	41:2j:68:HIS:ND1	2.36	0.41
1:1A:83:G:OP1	61:1A:4176:HOH:O	2.22	0.41
1:1A:526:A:O2'	1:1A:2043:C:O2	2.32	0.41
1:1A:795:C:H2'	1:1A:796:C:C6	2.55	0.41
1:1A:1050:A:C2	1:1A:2751:G:C5	3.09	0.41
1:1A:1466:G:O2'	1:1A:1546:C:O2'	2.25	0.41
1:1A:2100:G:C5	1:1A:2190:G:C6	3.08	0.41
1:1A:2224:G:H4'	1:1A:2226:C:C2	2.56	0.41
1:1A:2717:G:H1'	15:1T:96:ARG:HH21	1.86	0.41
2:1B:51:G:C6	2:1B:52:A:C6	3.08	0.41
4:1E:145:LYS:NZ	61:1E:403:HOH:O	2.34	0.41
12:1Q:51:ARG:HD3	12:1Q:66:ILE:HD11	2.02	0.41
27:15:35:GLU:HG2	27:15:51:TYR:CD1	2.55	0.41
32:1a:186:C:O2'	51:1t:82:SER:HA	2.20	0.41
32:1a:227:G:H2'	32:1a:228:A:O4'	2.20	0.41
32:1a:1151:A:O2'	32:1a:1152:A:H8	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1182:G:C4'	32:1a:1183:A:H5'	2.50	0.41
32:1a:1317:C:H2'	32:1a:1318:A:O4'	2.20	0.41
33:1b:59:GLU:HG2	33:1b:63:MET:HE3	2.03	0.41
35:1d:173:TRP:HB3	35:1d:187:ARG:HG3	2.02	0.41
38:1g:148:ASN:ND2	42:1k:54:ARG:HH22	2.19	0.41
39:1h:86:ILE:HG12	39:1h:135:CYS:HA	2.02	0.41
42:1k:20:TYR:CZ	42:1k:83:ILE:HD12	2.56	0.41
1:2A:30:G:H2'	1:2A:31:C:C6	2.55	0.41
1:2A:89:G:C6	1:2A:90:U:C4	3.09	0.41
1:2A:365:C:OP2	61:2A:3794:HOH:O	2.22	0.41
1:2A:1069:A:C4	1:2A:1095:A:H4'	2.55	0.41
1:2A:2390:U:P	30:28:35:GLN:HE22	2.44	0.41
1:2A:2869:G:H2'	1:2A:2870:C:O4'	2.20	0.41
4:2E:178:GLU:CD	4:2E:178:GLU:H	2.28	0.41
5:2F:124:LEU:HB3	5:2F:193:VAL:HG22	2.01	0.41
7:2H:127:GLU:C	7:2H:129:THR:H	2.29	0.41
10:2O:4:PRO:HA	10:2O:21:CYS:O	2.20	0.41
21:2Z:6:LYS:H	21:2Z:6:LYS:HG2	1.63	0.41
32:2a:645:C:H2'	32:2a:646:U:H6	1.86	0.41
32:2a:918:A:H2'	32:2a:919:A:O4'	2.20	0.41
32:2a:949:A:H1'	32:2a:1364:U:H3	1.85	0.41
32:2a:1121:U:C4	32:2a:1122:U:C4	3.08	0.41
33:2b:111:ARG:HD3	33:2b:111:ARG:HA	1.81	0.41
35:2d:87:GLY:HA3	35:2d:92:VAL:HG21	2.02	0.41
40:2i:25:LYS:O	40:2i:60:ASP:HB2	2.20	0.41
1:1A:27:G:C2	1:1A:512:G:N3	2.88	0.41
1:1A:658:C:H2'	1:1A:659:C:C6	2.56	0.41
1:1A:907:U:H4'	12:1Q:101:ARG:HH22	1.86	0.41
1:1A:1020:A:N1	1:1A:1141:U:O2'	2.49	0.41
1:1A:1061:U:H6	1:1A:1061:U:H2'	1.65	0.41
1:1A:1652:A:O2'	1:1A:1653:G:H5'	2.21	0.41
1:1A:1676:A:H2'	1:1A:1677:A:O4'	2.20	0.41
1:1A:2110:G:C2	1:1A:2120:G:H1'	2.55	0.41
2:1B:50:G:H5''	14:1S:61:ASN:HD21	1.84	0.41
4:1E:105:THR:OG1	4:1E:199:ARG:NH2	2.54	0.41
5:1F:8:GLN:HE22	5:1F:21:ALA:HB2	1.85	0.41
8:1I:130:TYR:N	8:1I:138:ILE:O	2.51	0.41
11:1P:8:PRO:HB2	11:1P:12:ALA:HB3	2.03	0.41
13:1R:87:TYR:OH	13:1R:116:LEU:HB3	2.21	0.41
32:1a:411:A:OP2	35:1d:30:LYS:HD2	2.21	0.41
32:1a:659:U:H2'	32:1a:660:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1095:U:C4	32:1a:1096:C:C4	3.08	0.41
33:1b:160:ASP:OD1	33:1b:160:ASP:N	2.52	0.41
33:1b:212:GLN:HG3	33:1b:213:LEU:N	2.36	0.41
36:1e:72:GLN:NE2	36:1e:144:THR:HG22	2.35	0.41
41:1j:78:ASN:O	41:1j:80:LYS:N	2.54	0.41
44:1m:11:ARG:C	44:1m:13:LYS:H	2.27	0.41
1:2A:99:U:O4	20:2Y:8:LYS:NZ	2.51	0.41
1:2A:459:U:H5''	29:27:40:TRP:CD2	2.55	0.41
1:2A:852:G:H2'	1:2A:853:G:C8	2.56	0.41
1:2A:1012:U:OP2	16:2U:70:ARG:NH2	2.47	0.41
1:2A:1216:G:OP2	16:2U:12:ARG:NH2	2.42	0.41
1:2A:1429:G:H2'	1:2A:1430:C:H6	1.86	0.41
1:2A:2482:G:O6	12:2Q:124:LYS:NZ	2.53	0.41
1:2A:2821:A:H2'	1:2A:2822:G:H8	1.85	0.41
3:2D:43:ARG:NH2	3:2D:49:ILE:HD11	2.35	0.41
3:2D:73:VAL:HG13	3:2D:120:GLY:HA3	2.03	0.41
4:2E:115:GLY:O	4:2E:119:ARG:HB2	2.21	0.41
6:2G:61:ALA:HA	6:2G:66:GLN:O	2.19	0.41
7:2H:117:PRO:HA	7:2H:118:PRO:HD3	1.93	0.41
14:2S:36:TYR:OH	14:2S:54:LEU:HD22	2.20	0.41
14:2S:74:ALA:HB2	14:2S:105:ALA:HA	2.03	0.41
20:2Y:67:LEU:HD23	20:2Y:67:LEU:HA	1.84	0.41
21:2Z:72:ARG:HD3	21:2Z:72:ARG:HA	1.76	0.41
32:2a:492:G:C2	32:2a:493:G:H1'	2.55	0.41
32:2a:818:G:O2'	32:2a:819:A:H5'	2.21	0.41
32:2a:1044:A:C5	32:2a:1045:C:H1'	2.56	0.41
32:2a:1504:G:H4'	32:2a:1505:G:C4	2.55	0.41
33:2b:16:HIS:O	33:2b:17:PHE:C	2.63	0.41
36:2e:92:LYS:HB3	36:2e:119:LEU:HB2	2.02	0.41
38:2g:149:ARG:HB3	42:2k:59:TYR:CE2	2.55	0.41
42:2k:50:TYR:CD2	42:2k:60:ALA:HB2	2.56	0.41
50:2s:12:ASP:HB3	50:2s:14:HIS:CD2	2.55	0.41
53:2y:40:ILE:HB	53:2y:51:ASP:HB2	2.02	0.41
1:1A:238:C:C2	1:1A:260:G:C2	3.09	0.41
1:1A:630:G:OP2	30:18:15:LYS:NZ	2.37	0.41
1:1A:1025:G:O2'	61:1A:4104:HOH:O	1.96	0.41
1:1A:1506:C:H2'	1:1A:1507:A:O4'	2.20	0.41
1:1A:1970:A:OP1	61:1A:4178:HOH:O	2.22	0.41
1:1A:2180:U:H2'	1:1A:2181:G:O4'	2.21	0.41
1:1A:2818:G:O2'	1:1A:2819:G:H5'	2.21	0.41
6:1G:109:VAL:C	6:1G:112:PRO:HD2	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:1I:110:ASP:N	8:1I:130:TYR:OH	2.45	0.41
10:1O:16:ALA:HB2	10:1O:52:VAL:HG21	2.02	0.41
10:1O:100:GLY:O	10:1O:119:PRO:HD2	2.20	0.41
32:1a:19:C:OP1	36:1e:125:SER:OG	2.24	0.41
32:1a:587:G:H4'	39:1h:3:THR:HA	2.01	0.41
32:1a:1263:C:H2'	32:1a:1264:C:C6	2.55	0.41
33:1b:156:LYS:HD3	33:1b:156:LYS:HA	1.91	0.41
35:1d:99:SER:O	35:1d:140:VAL:HG23	2.20	0.41
36:1e:150:ARG:HE	36:1e:150:ARG:HB2	1.55	0.41
1:2A:749:C:OP1	61:2A:3795:HOH:O	2.22	0.41
1:2A:885:C:H2'	1:2A:886:C:O4'	2.21	0.41
1:2A:1037:G:O6	61:2A:3781:HOH:O	2.20	0.41
1:2A:1063:G:C5	1:2A:1065:U:H5	2.38	0.41
1:2A:1064:C:H5	1:2A:1065:U:C6	2.38	0.41
1:2A:2321:G:N3	1:2A:2321:G:H2'	2.34	0.41
1:2A:2576:G:O2'	61:2A:3797:HOH:O	2.22	0.41
1:2A:2752:C:OP2	7:2H:4:ILE:HD11	2.21	0.41
12:2Q:103:MET:HE1	12:2Q:125:LEU:HD13	2.02	0.41
21:2Z:24:LEU:HA	21:2Z:25:PRO:HD3	1.94	0.41
23:21:73:LEU:HD23	23:21:73:LEU:HA	1.91	0.41
32:2a:397:A:H3'	32:2a:397:A:N3	2.36	0.41
32:2a:973:G:H3'	32:2a:974:A:H5''	2.03	0.41
32:2a:975:A:H5''	32:2a:1363(A):A:H62	1.85	0.41
32:2a:991:U:H2'	32:2a:1212:U:C4	2.55	0.41
32:2a:1020:U:H2'	32:2a:1021:G:H8	1.85	0.41
32:2a:1291:G:H4'	40:2i:39:GLY:HA3	2.03	0.41
33:2b:187:LEU:HA	33:2b:201:ILE:HB	2.02	0.41
38:2g:144:MET:HE3	38:2g:144:MET:HB2	1.91	0.41
40:2i:25:LYS:H	40:2i:60:ASP:HB2	1.85	0.41
47:2p:23:ASP:OD1	47:2p:25:ARG:HG2	2.21	0.41
48:2q:58:GLU:OE2	48:2q:75:ARG:NH2	2.54	0.41
48:2q:66:SER:OG	48:2q:67:LYS:O	2.36	0.41
51:2t:67:ALA:HA	51:2t:72:LEU:O	2.21	0.41
1:1A:35:G:H2'	1:1A:36:G:O4'	2.21	0.41
1:1A:1155:A:OP1	16:1U:55:ARG:HD3	2.20	0.41
1:1A:1607:C:N4	1:1A:1622:G:OP2	2.38	0.41
1:1A:2712:U:H2'	1:1A:2714:G:H5''	2.03	0.41
3:1D:132:PRO:HG3	3:1D:190:TYR:CE2	2.56	0.41
6:1G:135:LEU:HD13	6:1G:155:MET:HG2	2.03	0.41
7:1H:98:LEU:HD12	7:1H:102:ALA:O	2.20	0.41
21:1Z:25:PRO:O	21:1Z:85:HIS:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:18:26:LYS:HD2	30:18:48:PHE:CD2	2.56	0.41
32:1a:153:C:H2'	32:1a:154:C:C6	2.56	0.41
32:1a:616:G:O2'	32:1a:617:G:H5'	2.21	0.41
32:1a:722:A:N6	32:1a:724:G:C2	2.89	0.41
32:1a:731:G:OP1	32:1a:766:A:H1'	2.20	0.41
32:1a:950:U:H2'	32:1a:951:G:H8	1.83	0.41
32:1a:1166:G:N2	32:1a:1169:A:H3'	2.36	0.41
38:1g:28:ASN:HA	38:1g:31:MET:HE2	2.02	0.41
40:1i:18:PHE:HB2	40:1i:62:TYR:HB3	2.03	0.41
51:1t:72:LEU:HD11	51:1t:80:ARG:HD2	2.01	0.41
1:2A:190:A:OP2	23:21:39:LYS:HE3	2.21	0.41
1:2A:458:G:C8	29:27:37:LYS:HG2	2.55	0.41
1:2A:868:U:C4	1:2A:869:G:N7	2.89	0.41
1:2A:1118:C:H2'	1:2A:1119:C:O4'	2.20	0.41
1:2A:1133:U:O4	1:2A:2026:C:H1'	2.20	0.41
1:2A:1268:A:C2	1:2A:2013:A:C4	3.09	0.41
1:2A:1391:U:H2'	1:2A:1393:A:OP2	2.21	0.41
1:2A:2570:G:H2'	1:2A:2571:C:O4'	2.21	0.41
1:2A:2745:C:H2'	1:2A:2746:U:O4'	2.21	0.41
7:2H:163:TYR:CE1	7:2H:169:VAL:HG22	2.56	0.41
8:2I:4:ILE:HG12	8:2I:18:VAL:HG22	2.02	0.41
8:2I:29:TYR:O	8:2I:33:ARG:HB2	2.20	0.41
21:2Z:19:ARG:NH1	21:2Z:25:PRO:HG2	2.35	0.41
26:24:10:VAL:HG21	26:24:29:PRO:HG3	2.03	0.41
31:29:12:ASP:OD1	31:29:12:ASP:N	2.52	0.41
32:2a:1035:A:HO2'	32:2a:1036:G:H8	1.65	0.41
32:2a:1065:U:H4'	32:2a:1066:C:O5'	2.21	0.41
32:2a:1103:C:H5'	33:2b:98:LEU:HD22	2.02	0.41
32:2a:1228:C:OP1	44:2m:108:ARG:NH1	2.33	0.41
40:2i:28:VAL:HA	40:2i:63:ILE:O	2.21	0.41
41:2j:8:LEU:HD23	41:2j:96:ILE:HG23	2.03	0.41
43:2l:6:THR:HG23	43:2l:9:GLN:OE1	2.21	0.41
1:1A:198:C:H5'	1:1A:2244:U:OP1	2.21	0.41
1:1A:479:A:N3	1:1A:481:G:H5''	2.35	0.41
1:1A:1231:G:H2'	1:1A:1232:G:C8	2.56	0.41
1:1A:1271:G:H2'	61:1A:5245:HOH:O	2.21	0.41
1:1A:2024:G:H2'	1:1A:2025:C:C6	2.55	0.41
1:1A:2102:U:O2	1:1A:2102:U:H2'	2.21	0.41
1:1A:2705:A:H2'	1:1A:2706:G:O4'	2.21	0.41
56:1A:4027:ERY:H71	56:1A:4027:ERY:H4	1.84	0.41
57:1A:4028:MPD:HM2	57:1A:4028:MPD:H4	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1B:30:C:H2'	2:1B:31:C:H5'	2.03	0.41
4:1E:4:ILE:HD13	4:1E:28:ALA:HB1	2.03	0.41
4:1E:37:ARG:O	4:1E:45:THR:HA	2.21	0.41
5:1F:144:LYS:C	5:1F:146:ALA:H	2.29	0.41
5:1F:174:VAL:HG22	61:1F:460:HOH:O	2.19	0.41
13:1R:10:LEU:HD13	13:1R:40:LYS:HG2	2.02	0.41
16:1U:79:PHE:CE2	16:1U:83:LEU:HD11	2.56	0.41
19:1X:5:TYR:CE1	24:12:30:ARG:HG3	2.55	0.41
19:1X:60:ARG:NH1	29:17:47:ARG:HH22	2.19	0.41
21:1Z:152:ALA:O	21:1Z:155:LEU:HB2	2.20	0.41
24:12:3:LEU:HA	24:12:3:LEU:HD23	1.83	0.41
32:1a:19:C:O2'	32:1a:572:A:N1	2.51	0.41
32:1a:99:U:H2'	32:1a:100:C:C6	2.55	0.41
32:1a:181:G:N2	32:1a:195:A:C4	2.89	0.41
32:1a:353:A:N7	61:1a:1963:HOH:O	2.37	0.41
32:1a:707:C:OP1	42:1k:85:ARG:NH1	2.53	0.41
32:1a:757:U:OP1	32:1a:822:C:O2'	2.36	0.41
32:1a:863:U:OP1	61:1a:1923:HOH:O	2.22	0.41
32:1a:1219:U:OP1	45:1n:19:ARG:NH1	2.42	0.41
32:1a:1298:C:P	38:1g:114:ARG:HH22	2.43	0.41
33:1b:10:LEU:HD12	33:1b:48:MET:SD	2.61	0.41
33:1b:164:VAL:HG11	33:1b:170:GLU:HB2	2.02	0.41
35:1d:144:ASP:OD1	35:1d:144:ASP:N	2.53	0.41
38:1g:124:LEU:HA	38:1g:124:LEU:HD23	1.84	0.41
39:1h:39:LEU:HD12	39:1h:39:LEU:HA	1.87	0.41
42:1k:42:TRP:HZ3	42:1k:44:SER:HB3	1.86	0.41
42:1k:124:LYS:HE3	42:1k:125:PHE:CZ	2.56	0.41
43:1l:89:ARG:CZ	43:1l:91:LYS:HA	2.50	0.41
44:1m:91:ARG:HB2	44:1m:98:VAL:HG22	2.03	0.41
48:1q:3:LYS:HD3	48:1q:61:GLU:O	2.21	0.41
1:2A:117:G:C6	1:2A:119:A:C6	3.09	0.41
1:2A:185:U:H2'	1:2A:186:G:H8	1.85	0.41
1:2A:492:A:H2'	1:2A:493:G:O4'	2.20	0.41
1:2A:506:G:O3'	1:2A:507:A:H8	2.04	0.41
1:2A:985:C:H2'	1:2A:986:C:C6	2.55	0.41
1:2A:1160:G:C6	1:2A:1161:C:C4	3.09	0.41
1:2A:1837:C:O2'	1:2A:1927:A:N3	2.47	0.41
1:2A:2187:G:C5	1:2A:2188:C:C2	3.09	0.41
1:2A:2187:G:H5'	1:2A:2188:C:OP2	2.21	0.41
1:2A:2189:U:H2'	1:2A:2190:G:C8	2.55	0.41
1:2A:2207:G:H5''	1:2A:2208:A:N3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:2A:2784:C:H2'	1:2A:2785:C:H6	1.86	0.41
2:2B:11:C:OP2	2:2B:12:C:H5	2.04	0.41
3:2D:159:ALA:HB1	3:2D:198:ASN:O	2.21	0.41
4:2E:70:ALA:O	4:2E:72:VAL:HG23	2.21	0.41
6:2G:114:ILE:HG12	6:2G:140:ILE:HD13	2.03	0.41
6:2G:142:PRO:HB2	26:24:31:ILE:HG21	2.03	0.41
7:2H:98:LEU:HD12	7:2H:98:LEU:HA	1.81	0.41
7:2H:103:LEU:HB2	7:2H:123:PHE:CD2	2.56	0.41
8:2I:126:TYR:HB2	8:2I:142:VAL:HG23	2.01	0.41
10:2O:16:ALA:HB2	10:2O:52:VAL:HG21	2.03	0.41
16:2U:50:ARG:O	16:2U:54:LYS:NZ	2.50	0.41
18:2W:68:ARG:O	18:2W:109:GLU:HA	2.21	0.41
21:2Z:25:PRO:O	21:2Z:85:HIS:HA	2.21	0.41
21:2Z:146:ILE:HA	21:2Z:174:VAL:O	2.21	0.41
26:24:53:GLU:C	26:24:55:ARG:H	2.29	0.41
31:29:9:ARG:HE	31:29:16:VAL:HG23	1.86	0.41
32:2a:114:U:O2'	32:2a:115:G:H5'	2.21	0.41
32:2a:693:G:H1'	38:2g:82:GLY:HA3	2.03	0.41
32:2a:966:M2G:HM11	40:2i:127:LYS:NZ	2.36	0.41
32:2a:1014:A:H1'	50:2s:34:TRP:HB2	2.02	0.41
32:2a:1016:A:C5	32:2a:1017:G:H1'	2.55	0.41
32:2a:1428:A:H2'	32:2a:1429:C:O4'	2.21	0.41
32:2a:1442:G:H2'	32:2a:1442:G:N3	2.35	0.41
32:2a:1465:C:H2'	32:2a:1466:C:O4'	2.21	0.41
34:2c:8:ILE:HG23	34:2c:16:ARG:CD	2.50	0.41
36:2e:116:THR:HG23	36:2e:117:ASP:OD2	2.21	0.41
46:2o:21:ASP:OD2	46:2o:24:SER:HB3	2.21	0.41
46:2o:24:SER:O	46:2o:25:THR:C	2.63	0.41
51:2t:57:ARG:HH12	51:2t:100:ILE:HB	1.86	0.41
51:2t:59:ALA:O	51:2t:63:ILE:HG13	2.21	0.41
51:2t:86:ARG:O	51:2t:90:GLN:HB2	2.21	0.41
1:1A:1430:C:H2'	1:1A:1431:U:C6	2.55	0.41
1:1A:1993:U:H4'	4:1E:128:SER:OG	2.20	0.41
1:1A:2203:U:O4'	3:1D:151:LYS:HE2	2.21	0.41
1:1A:2758:A:C4	7:1H:67:LEU:HD21	2.56	0.41
7:1H:71:LEU:HD12	7:1H:71:LEU:HA	1.83	0.41
20:1Y:86:ARG:NH1	20:1Y:100:ALA:HB1	2.36	0.41
32:1a:129(A):G:C6	32:1a:189(E):U:H4'	2.56	0.41
32:1a:346:G:H5''	57:1a:1882:MPD:O4	2.21	0.41
32:1a:373:A:H61	32:1a:391:G:H1'	1.86	0.41
32:1a:524:G:H2'	32:1a:525:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:1010:G:H22	32:1a:1020:U:H1'	1.84	0.41
32:1a:1373:G:N7	40:1i:11:LYS:NZ	2.62	0.41
33:1b:106:LYS:HD2	33:1b:106:LYS:N	2.30	0.41
41:1j:46:ARG:HE	41:1j:64:GLU:CB	2.34	0.41
42:1k:98:LEU:O	42:1k:101:SER:OG	2.32	0.41
1:2A:26:G:C6	1:2A:27:G:N1	2.89	0.41
1:2A:118:A:O5'	1:2A:119:A:H5''	2.21	0.41
1:2A:226:G:H21	1:2A:228:A:H62	1.69	0.41
1:2A:300:A:H2'	1:2A:334:C:H1'	2.01	0.41
1:2A:311:A:C6	1:2A:328:U:C4	3.09	0.41
1:2A:409:C:H2'	1:2A:410:G:C8	2.56	0.41
1:2A:569:U:C4	1:2A:570:G:C6	3.09	0.41
1:2A:852:G:H2'	1:2A:853:G:H8	1.86	0.41
1:2A:897:C:H2'	1:2A:898:C:C6	2.54	0.41
1:2A:1026:U:H4'	1:2A:1027:A:OP1	2.20	0.41
6:2G:15:VAL:HG22	6:2G:175:LEU:HB3	2.02	0.41
7:2H:24:VAL:HG21	7:2H:72:ILE:HG12	2.01	0.41
9:2N:120:LEU:HG	9:2N:122:VAL:HG23	2.02	0.41
20:2Y:28:LYS:NZ	20:2Y:64:GLU:OE1	2.40	0.41
20:2Y:83:THR:HA	20:2Y:101:LYS:NZ	2.35	0.41
21:2Z:10:ARG:NH1	21:2Z:26:GLY:O	2.54	0.41
32:2a:503:C:OP2	43:2l:116:SER:OG	2.26	0.41
32:2a:622:A:C8	32:2a:623:C:C6	3.09	0.41
32:2a:1141:C:H2'	32:2a:1142:G:C8	2.45	0.41
32:2a:1359:C:H3'	45:2n:35:ARG:NH2	2.35	0.41
35:2d:59:ARG:O	35:2d:63:LYS:HG3	2.21	0.41
35:2d:155:LEU:HD23	35:2d:156:GLU:N	2.36	0.41
36:2e:5:ASP:OD1	36:2e:5:ASP:N	2.54	0.41
41:2j:78:ASN:O	41:2j:81:THR:N	2.49	0.41
43:2l:112:ASP:OD1	43:2l:112:ASP:N	2.52	0.41
1:1A:509:C:OP1	61:1A:4179:HOH:O	2.22	0.40
1:1A:2053:G:OP1	4:1E:144:ARG:HG3	2.21	0.40
1:1A:2580:U:C5	1:1A:2581:G:C6	3.09	0.40
1:1A:2662:A:H8	1:1A:2662:A:O5'	2.04	0.40
2:1B:78:A:C2	2:1B:100:A:C4	3.08	0.40
6:1G:133:LEU:HG	6:1G:157:ILE:HB	2.02	0.40
6:1G:165:THR:OG1	6:1G:168:GLU:HG3	2.21	0.40
12:1Q:21:THR:HG21	12:1Q:101:ARG:CB	2.50	0.40
32:1a:865:A:C2	32:1a:918:A:H4'	2.56	0.40
32:1a:1347:G:N7	40:1i:11:LYS:HE3	2.36	0.40
32:1a:1489:G:H2'	32:1a:1490:C:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:47:THR:O	33:1b:51:LEU:HD12	2.21	0.40
33:1b:78:GLN:NE2	33:1b:95:GLN:OE1	2.54	0.40
34:1c:157:ILE:HG13	34:1c:164:ARG:HB3	2.03	0.40
35:1d:47:ARG:O	35:1d:47:ARG:HG3	2.20	0.40
36:1e:71:LEU:HD11	36:1e:113:ALA:O	2.21	0.40
38:1g:69:VAL:HG22	38:1g:135:VAL:HG22	2.02	0.40
43:1l:34:ARG:HD3	43:1l:105:TYR:CE2	2.57	0.40
47:1p:22:THR:HA	47:1p:33:ILE:HD12	2.03	0.40
1:2A:75:G:H4'	24:22:55:ARG:CZ	2.51	0.40
1:2A:361:G:O2'	1:2A:362:U:H5'	2.20	0.40
1:2A:784:A:C8	1:2A:792:G:C5	3.09	0.40
1:2A:1112:G:H2'	1:2A:1113:U:O4'	2.21	0.40
1:2A:1590:U:H2'	1:2A:1591:G:H8	1.86	0.40
1:2A:2370:G:C6	1:2A:2371:G:C6	3.09	0.40
1:2A:2438:U:O2'	1:2A:2440:C:OP1	2.29	0.40
7:2H:3:ARG:NH1	7:2H:5:GLY:H	2.19	0.40
9:2N:62:VAL:HG13	9:2N:66:LYS:HD2	2.03	0.40
14:2S:35:ILE:HD11	14:2S:101:LEU:HD13	2.02	0.40
16:2U:16:LYS:HE2	16:2U:16:LYS:HB3	1.82	0.40
16:2U:32:PHE:N	61:2U:305:HOH:O	2.51	0.40
21:2Z:156:LYS:H	21:2Z:156:LYS:HG3	1.63	0.40
32:2a:64:G:H5''	32:2a:65:U:H3'	2.03	0.40
32:2a:564:C:C4	32:2a:565:U:C4	3.09	0.40
32:2a:922:G:C6	32:2a:923:A:C6	3.09	0.40
32:2a:925:G:H1'	32:2a:1502:A:C4	2.56	0.40
32:2a:926:G:C6	53:2y:87:LYS:HG3	2.56	0.40
32:2a:1030(A):G:H21	32:2a:1030(C):G:H3'	1.86	0.40
32:2a:1068:G:H8	32:2a:1068:G:OP2	2.04	0.40
32:2a:1113:C:H4'	34:2c:14:ILE:HG12	2.02	0.40
35:2d:12:CYS:SG	35:2d:19:LEU:HB2	2.61	0.40
39:2h:53:VAL:HB	39:2h:58:TYR:CD2	2.55	0.40
42:2k:34:ASP:OD2	42:2k:38:ASN:HB2	2.21	0.40
44:2m:108:ARG:NH1	44:2m:114:ARG:HA	2.36	0.40
46:2o:82:ILE:O	46:2o:86:GLY:N	2.54	0.40
1:1A:9:U:N3	1:1A:2629:A:C2	2.89	0.40
1:1A:613:G:N2	1:1A:614(C):A:O2'	2.54	0.40
1:1A:1935:G:H1'	1:1A:1964:G:N2	2.37	0.40
1:1A:2545:G:H2'	1:1A:2546:U:O4'	2.22	0.40
2:1B:15:A:OP1	2:1B:108:U:O2'	2.32	0.40
3:1D:106:ILE:HG12	3:1D:106:ILE:H	1.69	0.40
10:1O:63:VAL:HG12	10:1O:106:LEU:HD11	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:1S:48:LEU:HD23	14:1S:82:ILE:HD11	2.02	0.40
31:19:15:LYS:HD3	31:19:26:ILE:HD11	2.03	0.40
32:1a:44:G:C2	32:1a:45:U:H1'	2.56	0.40
32:1a:947:G:H2'	32:1a:948:C:O4'	2.21	0.40
32:1a:1106:G:H5''	34:1c:172:ARG:HG3	2.03	0.40
32:1a:1264:C:H2'	32:1a:1265:G:C8	2.56	0.40
32:1a:1279:A:OP2	41:1j:9:ARG:NH1	2.54	0.40
33:1b:209:ARG:HD3	33:1b:209:ARG:HA	1.83	0.40
36:1e:19:MET:O	36:1e:20:GLN:HG3	2.21	0.40
48:1q:43:LEU:HB3	48:1q:69:LYS:HG2	2.01	0.40
1:2A:539:G:H2'	1:2A:540:C:C6	2.56	0.40
1:2A:744:G:OP1	4:2E:132:HIS:ND1	2.47	0.40
1:2A:1401:G:H2'	1:2A:1402:C:O4'	2.21	0.40
1:2A:1576:U:H2'	1:2A:1577:C:H6	1.86	0.40
1:2A:1692:U:O2'	1:2A:1693:U:H2'	2.22	0.40
1:2A:2262:U:H4'	1:2A:2328:A:C2	2.56	0.40
1:2A:2885:C:O2'	27:25:34:PRO:HG3	2.21	0.40
1:2A:2886:G:O2'	27:25:32:PRO:HD2	2.21	0.40
3:2D:129:ASN:O	3:2D:193:VAL:HG22	2.21	0.40
3:2D:142:VAL:HG23	3:2D:193:VAL:HA	2.03	0.40
10:2O:9:GLU:O	10:2O:83:ALA:HA	2.21	0.40
15:2T:127:ALA:O	15:2T:129:ARG:N	2.54	0.40
30:28:56:GLU:HG3	30:28:56:GLU:H	1.65	0.40
32:2a:38:G:H22	32:2a:397:A:C5'	2.35	0.40
32:2a:390:C:H2'	32:2a:391:G:C8	2.56	0.40
32:2a:1215:G:C6	32:2a:1216:G:C5	3.09	0.40
33:2b:97:TRP:CH2	33:2b:173:ALA:HA	2.56	0.40
33:2b:126:GLU:CD	33:2b:126:GLU:H	2.29	0.40
44:2m:23:TYR:CE2	44:2m:70:LEU:HD22	2.56	0.40
45:2n:23:ARG:NH1	45:2n:30:ALA:HB2	2.36	0.40
49:2r:55:ARG:HB3	49:2r:55:ARG:NH1	2.36	0.40
1:1A:194:G:H3'	61:1A:4529:HOH:O	2.21	0.40
1:1A:2101:G:H2'	1:1A:2102:U:C6	2.56	0.40
1:1A:2292:C:H2'	1:1A:2293:C:C6	2.57	0.40
8:1I:38:LEU:HB3	8:1I:40:THR:HG23	2.04	0.40
32:1a:131:C:O2'	32:1a:262:A:N3	2.48	0.40
32:1a:616:G:C2	32:1a:617:G:C8	3.10	0.40
32:1a:688:G:H2'	32:1a:689:C:H6	1.86	0.40
32:1a:892:A:H2'	32:1a:893:C:C6	2.55	0.40
32:1a:1206:G:H2'	32:1a:1207:2MG:O4'	2.21	0.40
32:1a:1376:U:H2'	32:1a:1377:A:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:1b:47:THR:HA	33:1b:202:PRO:HG2	2.04	0.40
39:1h:33:GLU:HG2	39:1h:59:LEU:HD21	2.02	0.40
41:1j:49:VAL:HG21	45:1n:41:ARG:O	2.21	0.40
43:1l:44:THR:HG22	43:1l:52:LEU:HD23	2.04	0.40
44:1m:15:VAL:O	44:1m:19:LEU:HG	2.21	0.40
46:1o:9:GLN:O	46:1o:13:GLN:HG3	2.22	0.40
1:2A:582:G:H2'	1:2A:583:G:C8	2.56	0.40
1:2A:639:U:H2'	1:2A:640:C:C6	2.56	0.40
1:2A:652(D):C:N4	1:2A:652(U):G:H1	2.19	0.40
1:2A:817:C:H4'	1:2A:932:G:C5	2.56	0.40
1:2A:989:G:OP1	25:23:31:LEU:HG	2.21	0.40
1:2A:1598:C:H2'	1:2A:1599:C:H6	1.86	0.40
1:2A:2650:U:H2'	1:2A:2651:C:C6	2.56	0.40
1:2A:2660:A:H2'	1:2A:2661:G:O4'	2.22	0.40
1:2A:2881:C:H2'	1:2A:2882:A:O4'	2.21	0.40
2:2B:55:U:OP2	61:2B:304:HOH:O	2.21	0.40
7:2H:123:PHE:CD1	7:2H:133:VAL:HG22	2.57	0.40
22:20:82:ARG:HA	22:20:83:PRO:HD3	1.97	0.40
26:24:52:THR:HG23	26:24:53:GLU:H	1.86	0.40
26:24:64:GLY:C	26:24:66:SER:N	2.79	0.40
32:2a:144:G:H1	32:2a:178:C:H42	1.69	0.40
32:2a:615:C:H2'	32:2a:616:G:O4'	2.22	0.40
32:2a:625:G:H2'	32:2a:626:U:C6	2.55	0.40
32:2a:766:A:H2'	32:2a:767:A:O4'	2.21	0.40
32:2a:815:A:N7	32:2a:1509:C:O2'	2.49	0.40
32:2a:939:G:OP1	38:2g:102:ARG:NH1	2.41	0.40
32:2a:996:A:H2'	32:2a:997:U:O4'	2.21	0.40
32:2a:1134:G:H2'	32:2a:1135:U:H5'	2.02	0.40
35:2d:129:ASN:OD1	35:2d:145:GLU:N	2.47	0.40
35:2d:160:GLN:HG3	35:2d:160:GLN:H	1.68	0.40
1:1A:226:G:N2	1:1A:228:A:H62	2.17	0.40
1:1A:234:C:H2'	1:1A:235:U:C6	2.56	0.40
1:1A:289:A:H61	1:1A:351:G:H1'	1.86	0.40
1:1A:1055:G:N1	1:1A:1104:C:C2	2.87	0.40
1:1A:2722:G:H2'	1:1A:2723:C:C6	2.57	0.40
2:1B:11:C:OP2	2:1B:12:C:H5	2.05	0.40
3:1D:69:ARG:HE	3:1D:130:ALA:CB	2.35	0.40
6:1G:131:TYR:HB3	6:1G:159:VAL:CG1	2.52	0.40
7:1H:55:PRO:HG2	7:1H:61:HIS:CE1	2.55	0.40
12:1Q:21:THR:HG21	12:1Q:101:ARG:N	2.36	0.40
32:1a:97:G:H2'	32:1a:98:G:O4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1a:658:G:H2'	32:1a:659:U:C6	2.57	0.40
34:1c:73:PRO:O	34:1c:77:ILE:HG13	2.21	0.40
35:1d:155:LEU:CD2	35:1d:157:LEU:H	2.34	0.40
37:1f:67:MET:HG3	37:1f:68:PRO:HD2	2.02	0.40
39:1h:12:ARG:NH1	39:1h:26:VAL:HA	2.36	0.40
51:1t:82:SER:O	51:1t:86:ARG:HG3	2.22	0.40
1:2A:328:U:H4'	20:2Y:68:HIS:CG	2.56	0.40
1:2A:363:G:H2'	1:2A:363(A):A:H8	1.86	0.40
1:2A:583:G:OP2	16:2U:10:ARG:HD2	2.22	0.40
1:2A:1076:C:H4'	1:2A:1077:A:OP1	2.21	0.40
1:2A:1198:U:H2'	1:2A:1199:U:C6	2.57	0.40
1:2A:1406:U:H2'	1:2A:1407:C:C6	2.56	0.40
1:2A:1527:G:H5''	1:2A:1528:A:OP1	2.22	0.40
1:2A:1855:G:N7	61:2A:3950:HOH:O	2.37	0.40
1:2A:2208:A:H1'	1:2A:2219:G:C5	2.56	0.40
5:2F:187:VAL:HG12	11:2P:3:LEU:HD22	2.04	0.40
20:2Y:82:PRO:O	20:2Y:101:LYS:NZ	2.40	0.40
24:22:35:LEU:HD11	24:22:49:LYS:HB2	2.04	0.40
26:24:15:ILE:H	26:24:15:ILE:HG12	1.63	0.40
32:2a:45:U:H2'	32:2a:46:G:C8	2.57	0.40
32:2a:796:C:H6	32:2a:796:C:O5'	2.04	0.40
32:2a:865:A:H2'	32:2a:866:C:O4'	2.22	0.40
32:2a:1073:U:H2'	32:2a:1074:G:H8	1.86	0.40
32:2a:1104:G:H4'	33:2b:111:ARG:NH2	2.36	0.40
32:2a:1170:A:C5	32:2a:1171:G:H1'	2.57	0.40
33:2b:146:GLN:O	33:2b:150:SER:HB2	2.21	0.40
42:2k:69:ALA:O	42:2k:73:MET:HG3	2.21	0.40
1:1A:312:G:H4'	1:1A:331:A:C2	2.57	0.40
1:1A:320:A:H4'	1:1A:322:A:N7	2.37	0.40
1:1A:608:A:C4	1:1A:621:A:C6	3.09	0.40
1:1A:747:U:O2	1:1A:2014:A:H1'	2.21	0.40
1:1A:1337:G:H2'	1:1A:1338:G:O4'	2.21	0.40
1:1A:1467:C:OP2	1:1A:1547:C:H5	2.05	0.40
1:1A:1512:U:H2'	1:1A:1513:C:C6	2.57	0.40
1:1A:2189:U:C2'	1:1A:2190:G:H5'	2.51	0.40
2:1B:108:U:H2'	2:1B:109:C:H5''	2.04	0.40
3:1D:70:TRP:HB3	3:1D:190:TYR:CZ	2.57	0.40
5:1F:64:ILE:CG2	5:1F:78:ILE:HG23	2.51	0.40
6:1G:59:GLU:OE2	6:1G:153:ARG:NH2	2.55	0.40
11:1P:138:LEU:HD23	11:1P:145:PRO:HB3	2.02	0.40
12:1Q:39:PRO:HA	12:1Q:97:VAL:O	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:14:56:VAL:O	26:14:60:GLN:HB2	2.22	0.40
32:1a:78:G:H1	32:1a:91:C:N4	2.18	0.40
32:1a:747:C:H3'	32:1a:748:C:C6	2.56	0.40
32:1a:1010:G:H2'	32:1a:1011:G:C8	2.54	0.40
32:1a:1121:U:H2'	32:1a:1122:U:H6	1.86	0.40
34:1c:82:GLU:HA	34:1c:85:ARG:NH2	2.37	0.40
51:1t:100:ILE:HB	51:1t:101:GLY:H	1.74	0.40
1:2A:322:A:OP2	5:2F:169:ASN:HB2	2.22	0.40
1:2A:493:G:H2'	1:2A:494:G:O4'	2.21	0.40
1:2A:581:C:H2'	1:2A:582:G:C8	2.57	0.40
1:2A:601:C:O2'	1:2A:605:C:H5''	2.21	0.40
1:2A:638:G:H2'	1:2A:639:U:C6	2.56	0.40
1:2A:856:C:O2'	1:2A:857:C:OP1	2.36	0.40
1:2A:1475:G:C2	1:2A:1476:C:C2	3.10	0.40
1:2A:1693:U:H4'	1:2A:1694:C:OP2	2.22	0.40
1:2A:1826:G:H4'	3:2D:242:ARG:CZ	2.52	0.40
2:2B:5:C:O2'	2:2B:27:C:O2	2.39	0.40
6:2G:170:ARG:HA	6:2G:170:ARG:HD2	1.93	0.40
7:2H:13:LYS:HB2	7:2H:13:LYS:HE3	1.79	0.40
7:2H:89:ILE:O	7:2H:129:THR:HG23	2.22	0.40
13:2R:73:VAL:HG23	61:2R:310:HOH:O	2.21	0.40
15:2T:119:LYS:O	15:2T:123:GLN:HG3	2.22	0.40
17:2V:31:ALA:O	17:2V:61:VAL:HG22	2.21	0.40
21:2Z:40:ASP:OD2	21:2Z:42:VAL:HG22	2.21	0.40
25:23:6:VAL:HG13	25:23:54:VAL:CG1	2.51	0.40
32:2a:189(D):C:C4	32:2a:189(E):U:N3	2.90	0.40
32:2a:848:C:H6	32:2a:848:C:O5'	2.05	0.40
33:2b:37:ASN:HB2	33:2b:39:ILE:HD12	2.02	0.40
33:2b:167:PRO:HD3	33:2b:187:LEU:O	2.21	0.40
35:2d:92:VAL:O	35:2d:96:LEU:HD13	2.22	0.40
35:2d:117:ALA:O	35:2d:121:VAL:HG23	2.21	0.40
37:2f:100:ASN:HD22	37:2f:100:ASN:HA	1.74	0.40
51:2t:91:LEU:HD23	51:2t:91:LEU:HA	1.96	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	1D	273/276 (99%)	258 (94%)	15 (6%)	0	100	100
3	2D	273/276 (99%)	254 (93%)	19 (7%)	0	100	100
4	1E	202/206 (98%)	191 (95%)	9 (4%)	2 (1%)	12	14
4	2E	202/206 (98%)	191 (95%)	10 (5%)	1 (0%)	24	32
5	1F	201/210 (96%)	195 (97%)	5 (2%)	1 (0%)	24	32
5	2F	201/210 (96%)	192 (96%)	8 (4%)	1 (0%)	24	32
6	1G	179/182 (98%)	160 (89%)	13 (7%)	6 (3%)	3	1
6	2G	179/182 (98%)	157 (88%)	18 (10%)	4 (2%)	5	3
7	1H	172/180 (96%)	160 (93%)	9 (5%)	3 (2%)	7	6
7	2H	171/180 (95%)	150 (88%)	19 (11%)	2 (1%)	10	11
8	1I	145/148 (98%)	131 (90%)	13 (9%)	1 (1%)	18	24
8	2I	144/148 (97%)	133 (92%)	9 (6%)	2 (1%)	9	8
9	1N	138/140 (99%)	136 (99%)	2 (1%)	0	100	100
9	2N	138/140 (99%)	127 (92%)	11 (8%)	0	100	100
10	1O	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
10	2O	120/122 (98%)	113 (94%)	6 (5%)	1 (1%)	16	20
11	1P	147/150 (98%)	139 (95%)	7 (5%)	1 (1%)	18	24
11	2P	147/150 (98%)	137 (93%)	8 (5%)	2 (1%)	9	8
12	1Q	139/141 (99%)	133 (96%)	5 (4%)	1 (1%)	18	24
12	2Q	139/141 (99%)	129 (93%)	10 (7%)	0	100	100
13	1R	116/118 (98%)	114 (98%)	2 (2%)	0	100	100
13	2R	116/118 (98%)	113 (97%)	3 (3%)	0	100	100
14	1S	108/112 (96%)	102 (94%)	5 (5%)	1 (1%)	14	17
14	2S	108/112 (96%)	95 (88%)	12 (11%)	1 (1%)	14	17
15	1T	129/146 (88%)	123 (95%)	5 (4%)	1 (1%)	16	20

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	2T	129/146 (88%)	122 (95%)	5 (4%)	2 (2%)	7	7
16	1U	114/118 (97%)	114 (100%)	0	0	100	100
16	2U	114/118 (97%)	110 (96%)	4 (4%)	0	100	100
17	1V	99/101 (98%)	95 (96%)	2 (2%)	2 (2%)	6	4
17	2V	99/101 (98%)	95 (96%)	3 (3%)	1 (1%)	12	14
18	1W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	2W	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
19	1X	93/96 (97%)	92 (99%)	0	1 (1%)	11	12
19	2X	93/96 (97%)	90 (97%)	2 (2%)	1 (1%)	11	12
20	1Y	105/110 (96%)	98 (93%)	7 (7%)	0	100	100
20	2Y	105/110 (96%)	97 (92%)	8 (8%)	0	100	100
21	1Z	201/206 (98%)	189 (94%)	10 (5%)	2 (1%)	12	14
21	2Z	199/206 (97%)	176 (88%)	22 (11%)	1 (0%)	24	32
22	10	75/85 (88%)	72 (96%)	3 (4%)	0	100	100
22	20	75/85 (88%)	69 (92%)	6 (8%)	0	100	100
23	11	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	11	12
23	21	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	11	12
24	12	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	22	68/72 (94%)	64 (94%)	4 (6%)	0	100	100
25	13	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
25	23	57/60 (95%)	54 (95%)	2 (4%)	1 (2%)	6	5
26	14	67/71 (94%)	53 (79%)	11 (16%)	3 (4%)	2	0
26	24	67/71 (94%)	47 (70%)	18 (27%)	2 (3%)	3	2
27	15	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	25	57/60 (95%)	53 (93%)	3 (5%)	1 (2%)	6	5
28	16	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
28	26	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
29	17	46/49 (94%)	46 (100%)	0	0	100	100
29	27	46/49 (94%)	46 (100%)	0	0	100	100
30	18	62/65 (95%)	62 (100%)	0	0	100	100
30	28	62/65 (95%)	62 (100%)	0	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	19	35/37 (95%)	35 (100%)	0	0	100	100
31	29	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
33	1b	229/256 (90%)	191 (83%)	31 (14%)	7 (3%)	3	1
33	2b	229/256 (90%)	194 (85%)	27 (12%)	8 (4%)	3	1
34	1c	204/239 (85%)	184 (90%)	19 (9%)	1 (0%)	24	32
34	2c	204/239 (85%)	174 (85%)	26 (13%)	4 (2%)	6	4
35	1d	206/209 (99%)	193 (94%)	13 (6%)	0	100	100
35	2d	206/209 (99%)	186 (90%)	15 (7%)	5 (2%)	4	3
36	1e	146/162 (90%)	136 (93%)	9 (6%)	1 (1%)	18	24
36	2e	146/162 (90%)	138 (94%)	8 (6%)	0	100	100
37	1f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
37	2f	98/101 (97%)	94 (96%)	4 (4%)	0	100	100
38	1g	153/156 (98%)	150 (98%)	2 (1%)	1 (1%)	18	24
38	2g	153/156 (98%)	140 (92%)	10 (6%)	3 (2%)	6	4
39	1h	135/138 (98%)	128 (95%)	6 (4%)	1 (1%)	18	24
39	2h	135/138 (98%)	126 (93%)	9 (7%)	0	100	100
40	1i	125/128 (98%)	109 (87%)	16 (13%)	0	100	100
40	2i	124/128 (97%)	105 (85%)	15 (12%)	4 (3%)	3	1
41	1j	95/105 (90%)	79 (83%)	13 (14%)	3 (3%)	3	1
41	2j	94/105 (90%)	79 (84%)	12 (13%)	3 (3%)	3	1
42	1k	112/129 (87%)	101 (90%)	10 (9%)	1 (1%)	14	17
42	2k	112/129 (87%)	102 (91%)	7 (6%)	3 (3%)	4	2
43	1l	119/132 (90%)	115 (97%)	4 (3%)	0	100	100
43	2l	119/132 (90%)	111 (93%)	8 (7%)	0	100	100
44	1m	114/126 (90%)	103 (90%)	9 (8%)	2 (2%)	6	5
44	2m	112/126 (89%)	97 (87%)	13 (12%)	2 (2%)	6	5
45	1n	58/61 (95%)	53 (91%)	5 (9%)	0	100	100
45	2n	58/61 (95%)	55 (95%)	3 (5%)	0	100	100
46	1o	86/89 (97%)	77 (90%)	6 (7%)	3 (4%)	3	1
46	2o	86/89 (97%)	79 (92%)	5 (6%)	2 (2%)	5	3
47	1p	80/88 (91%)	68 (85%)	11 (14%)	1 (1%)	9	9

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	2p	80/88 (91%)	70 (88%)	10 (12%)	0	100	100
48	1q	97/105 (92%)	85 (88%)	11 (11%)	1 (1%)	12	14
48	2q	97/105 (92%)	90 (93%)	7 (7%)	0	100	100
49	1r	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
49	2r	66/88 (75%)	62 (94%)	3 (4%)	1 (2%)	8	7
50	1s	81/93 (87%)	73 (90%)	6 (7%)	2 (2%)	4	3
50	2s	81/93 (87%)	67 (83%)	13 (16%)	1 (1%)	10	11
51	1t	94/106 (89%)	83 (88%)	8 (8%)	3 (3%)	3	1
51	2t	96/106 (91%)	87 (91%)	6 (6%)	3 (3%)	3	1
52	1u	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	2u	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	0
53	1y	95/113 (84%)	95 (100%)	0	0	100	100
53	2y	94/113 (83%)	89 (95%)	5 (5%)	0	100	100
All	All	11629/12354 (94%)	10763 (93%)	749 (6%)	117 (1%)	12	14

All (117) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	1G	50	ALA
33	1b	17	PHE
33	1b	124	SER
34	1c	107	GLN
41	1j	55	LYS
6	2G	78	SER
6	2G	81	LYS
7	2H	126	PRO
8	2I	117	GLU
11	2P	36	LYS
15	2T	127	ALA
33	2b	20	GLU
35	2d	5	ILE
38	2g	55	GLY
40	2i	54	ASP
41	2j	78	ASN
42	2k	89	ALA
51	2t	100	ILE
4	1E	71	GLY

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Mol	Chain	Res	Type
5	1F	130	ALA
6	1G	44	GLY
6	1G	47	LYS
7	1H	126	PRO
21	1Z	53	ILE
33	1b	127	ILE
38	1g	55	GLY
44	1m	67	GLU
46	1o	88	ARG
50	1s	27	GLU
51	1t	47	GLY
5	2F	130	ALA
6	2G	42	GLY
19	2X	94	GLY
23	2l	3	LYS
33	2b	17	PHE
35	2d	4	TYR
40	2i	43	ALA
41	2j	79	ARG
44	2m	23	TYR
46	2o	19	PRO
46	2o	87	ILE
6	1G	51	ARG
7	1H	159	GLU
8	1I	102	SER
14	1S	59	LYS
19	1X	94	GLY
26	14	39	CYS
26	14	57	GLU
33	1b	22	LYS
36	1e	70	PRO
41	1j	77	PRO
44	1m	3	ARG
51	1t	100	ILE
8	2I	10	GLU
11	2P	29	LYS
15	2T	128	GLU
26	24	62	ARG
33	2b	64	ARG
33	2b	126	GLU
34	2c	4	LYS
34	2c	12	LEU

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Mol	Chain	Res	Type
34	2c	99	VAL
35	2d	86	LYS
38	2g	7	ALA
40	2i	96	LEU
49	2r	36	ASN
50	2s	29	ARG
4	1E	52	LEU
6	1G	49	ASP
6	1G	74	LYS
11	1P	29	LYS
12	1Q	59	ARG
17	1V	43	GLU
21	1Z	79	ARG
33	1b	9	GLU
33	1b	83	MET
46	1o	19	PRO
46	1o	87	ILE
47	1p	28	ARG
51	1t	99	LEU
4	2E	52	LEU
7	2H	110	SER
33	2b	16	HIS
33	2b	21	ARG
40	2i	52	ALA
44	2m	106	ASN
51	2t	95	ALA
15	1T	126	ALA
23	11	3	LYS
26	14	61	ARG
33	1b	20	GLU
48	1q	68	ARG
50	1s	7	LYS
27	25	35	GLU
33	2b	125	PRO
34	2c	108	ASN
38	2g	4	ARG
52	2u	7	ARG
7	1H	92	ILE
39	1h	54	ASP
10	2O	5	GLN
33	2b	232	PRO
42	2k	105	VAL

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Mol	Chain	Res	Type
17	1V	79	VAL
14	2S	82	ILE
17	2V	79	VAL
51	2t	102	GLY
21	2Z	53	ILE
25	23	59	VAL
6	2G	177	GLY
26	24	45	GLY
42	2k	90	GLY
42	1k	105	VAL
35	2d	40	PRO
41	1j	82	ILE
35	2d	88	VAL
41	2j	75	ILE

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1D	214/218 (98%)	197 (92%)	17 (8%)	11	14
3	2D	215/218 (99%)	193 (90%)	22 (10%)	7	6
4	1E	164/166 (99%)	148 (90%)	16 (10%)	7	7
4	2E	164/166 (99%)	149 (91%)	15 (9%)	9	10
5	1F	160/166 (96%)	144 (90%)	16 (10%)	7	7
5	2F	159/166 (96%)	138 (87%)	21 (13%)	4	3
6	1G	144/156 (92%)	134 (93%)	10 (7%)	14	19
6	2G	142/156 (91%)	121 (85%)	21 (15%)	3	2
7	1H	144/148 (97%)	134 (93%)	10 (7%)	14	19
7	2H	143/148 (97%)	129 (90%)	14 (10%)	7	7
8	1I	111/124 (90%)	95 (86%)	16 (14%)	3	2
8	2I	108/124 (87%)	98 (91%)	10 (9%)	8	9
9	1N	119/119 (100%)	106 (89%)	13 (11%)	6	5

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	2N	118/119 (99%)	109 (92%)	9 (8%)	12	15
10	1O	100/100 (100%)	99 (99%)	1 (1%)	68	77
10	2O	100/100 (100%)	96 (96%)	4 (4%)	28	41
11	1P	115/116 (99%)	106 (92%)	9 (8%)	11	14
11	2P	115/116 (99%)	110 (96%)	5 (4%)	26	38
12	1Q	111/111 (100%)	103 (93%)	8 (7%)	13	17
12	2Q	111/111 (100%)	101 (91%)	10 (9%)	9	10
13	1R	101/101 (100%)	94 (93%)	7 (7%)	14	19
13	2R	101/101 (100%)	94 (93%)	7 (7%)	14	19
14	1S	87/88 (99%)	79 (91%)	8 (9%)	8	9
14	2S	85/88 (97%)	75 (88%)	10 (12%)	5	4
15	1T	115/127 (91%)	105 (91%)	10 (9%)	9	11
15	2T	113/127 (89%)	105 (93%)	8 (7%)	13	18
16	1U	93/94 (99%)	90 (97%)	3 (3%)	34	49
16	2U	93/94 (99%)	85 (91%)	8 (9%)	10	11
17	1V	81/82 (99%)	75 (93%)	6 (7%)	13	16
17	2V	80/82 (98%)	71 (89%)	9 (11%)	5	5
18	1W	90/92 (98%)	87 (97%)	3 (3%)	33	48
18	2W	90/92 (98%)	84 (93%)	6 (7%)	15	20
19	1X	77/78 (99%)	73 (95%)	4 (5%)	21	30
19	2X	77/78 (99%)	76 (99%)	1 (1%)	61	73
20	1Y	86/91 (94%)	79 (92%)	7 (8%)	11	13
20	2Y	86/91 (94%)	78 (91%)	8 (9%)	8	9
21	1Z	169/179 (94%)	149 (88%)	20 (12%)	5	4
21	2Z	165/179 (92%)	147 (89%)	18 (11%)	6	5
22	10	61/67 (91%)	58 (95%)	3 (5%)	22	33
22	20	61/67 (91%)	57 (93%)	4 (7%)	15	20
23	11	79/83 (95%)	72 (91%)	7 (9%)	9	10
23	21	81/83 (98%)	73 (90%)	8 (10%)	7	7
24	12	65/67 (97%)	61 (94%)	4 (6%)	16	23
24	22	66/67 (98%)	64 (97%)	2 (3%)	36	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	13	51/52 (98%)	46 (90%)	5 (10%)	7	7
25	23	50/52 (96%)	48 (96%)	2 (4%)	28	41
26	14	58/63 (92%)	48 (83%)	10 (17%)	2	1
26	24	54/63 (86%)	45 (83%)	9 (17%)	2	1
27	15	51/52 (98%)	47 (92%)	4 (8%)	11	14
27	25	50/52 (96%)	47 (94%)	3 (6%)	17	26
28	16	51/52 (98%)	46 (90%)	5 (10%)	7	7
28	26	50/52 (96%)	46 (92%)	4 (8%)	11	13
29	17	41/42 (98%)	38 (93%)	3 (7%)	13	17
29	27	41/42 (98%)	37 (90%)	4 (10%)	7	7
30	18	54/55 (98%)	50 (93%)	4 (7%)	13	16
30	28	54/55 (98%)	51 (94%)	3 (6%)	19	27
31	19	34/34 (100%)	34 (100%)	0	100	100
31	29	34/34 (100%)	33 (97%)	1 (3%)	37	52
33	1b	191/220 (87%)	165 (86%)	26 (14%)	3	3
33	2b	187/220 (85%)	158 (84%)	29 (16%)	2	2
34	1c	144/188 (77%)	138 (96%)	6 (4%)	26	39
34	2c	140/188 (74%)	123 (88%)	17 (12%)	5	4
35	1d	171/181 (94%)	151 (88%)	20 (12%)	5	4
35	2d	172/181 (95%)	153 (89%)	19 (11%)	6	5
36	1e	114/123 (93%)	104 (91%)	10 (9%)	9	10
36	2e	114/123 (93%)	102 (90%)	12 (10%)	6	6
37	1f	85/90 (94%)	73 (86%)	12 (14%)	3	2
37	2f	85/90 (94%)	74 (87%)	11 (13%)	4	3
38	1g	120/127 (94%)	110 (92%)	10 (8%)	10	12
38	2g	119/127 (94%)	102 (86%)	17 (14%)	3	2
39	1h	116/119 (98%)	104 (90%)	12 (10%)	7	6
39	2h	114/119 (96%)	104 (91%)	10 (9%)	9	10
40	1i	91/99 (92%)	79 (87%)	12 (13%)	4	3
40	2i	88/99 (89%)	78 (89%)	10 (11%)	5	5
41	1j	68/92 (74%)	63 (93%)	5 (7%)	13	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	2j	68/92 (74%)	61 (90%)	7 (10%)	7	6
42	1k	83/99 (84%)	75 (90%)	8 (10%)	8	8
42	2k	83/99 (84%)	70 (84%)	13 (16%)	2	1
43	1l	96/108 (89%)	88 (92%)	8 (8%)	10	12
43	2l	96/108 (89%)	88 (92%)	8 (8%)	10	12
44	1m	90/101 (89%)	82 (91%)	8 (9%)	9	10
44	2m	87/101 (86%)	77 (88%)	10 (12%)	5	5
45	1n	49/50 (98%)	44 (90%)	5 (10%)	7	6
45	2n	49/50 (98%)	44 (90%)	5 (10%)	7	6
46	1o	78/80 (98%)	76 (97%)	2 (3%)	40	55
46	2o	78/80 (98%)	72 (92%)	6 (8%)	12	15
47	1p	69/74 (93%)	61 (88%)	8 (12%)	5	4
47	2p	68/74 (92%)	61 (90%)	7 (10%)	7	6
48	1q	94/97 (97%)	87 (93%)	7 (7%)	13	16
48	2q	94/97 (97%)	88 (94%)	6 (6%)	16	22
49	1r	59/77 (77%)	54 (92%)	5 (8%)	10	11
49	2r	59/77 (77%)	54 (92%)	5 (8%)	10	11
50	1s	68/80 (85%)	62 (91%)	6 (9%)	9	10
50	2s	67/80 (84%)	63 (94%)	4 (6%)	17	26
51	1t	71/82 (87%)	64 (90%)	7 (10%)	7	7
51	2t	70/82 (85%)	66 (94%)	4 (6%)	18	27
52	1u	18/22 (82%)	18 (100%)	0	100	100
52	2u	18/22 (82%)	18 (100%)	0	100	100
53	1y	82/98 (84%)	76 (93%)	6 (7%)	13	17
53	2y	79/98 (81%)	70 (89%)	9 (11%)	5	5
All	All	9524/10260 (93%)	8657 (91%)	867 (9%)	9	10

All (867) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	1D	37	LEU
3	1D	61	LEU
3	1D	64	ILE

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Mol	Chain	Res	Type
3	1D	94	LEU
3	1D	99	ASP
3	1D	103	ARG
3	1D	106	ILE
3	1D	126	GLN
3	1D	131	LEU
3	1D	134	ARG
3	1D	141	VAL
3	1D	142	VAL
3	1D	155	LEU
3	1D	193	VAL
3	1D	221	VAL
3	1D	229	VAL
3	1D	259	THR
4	1E	7	VAL
4	1E	9	VAL
4	1E	21	VAL
4	1E	41	LYS
4	1E	49	LEU
4	1E	72	VAL
4	1E	75	VAL
4	1E	89	ASP
4	1E	116	VAL
4	1E	119	ARG
4	1E	170	LEU
4	1E	175	VAL
4	1E	181	LEU
4	1E	188	VAL
4	1E	195	LEU
4	1E	202	LYS
5	1F	12	LEU
5	1F	33	LEU
5	1F	53	THR
5	1F	57	VAL
5	1F	74	ARG
5	1F	88	VAL
5	1F	125	LEU
5	1F	132	VAL
5	1F	145	GLU
5	1F	151	SER
5	1F	157	VAL
5	1F	158	THR

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Mol	Chain	Res	Type
5	1F	162	LEU
5	1F	170	LEU
5	1F	183	VAL
5	1F	192	LEU
6	1G	7	LEU
6	1G	31	VAL
6	1G	43	LEU
6	1G	45	GLU
6	1G	52	ILE
6	1G	53	LEU
6	1G	62	LEU
6	1G	79	ASN
6	1G	159	VAL
6	1G	168	GLU
7	1H	15	VAL
7	1H	18	GLU
7	1H	32	GLU
7	1H	71	LEU
7	1H	89	ILE
7	1H	98	LEU
7	1H	119	GLU
7	1H	122	THR
7	1H	141	VAL
7	1H	172	LYS
8	1I	10	GLU
8	1I	12	LEU
8	1I	38	LEU
8	1I	41	GLU
8	1I	61	ARG
8	1I	64	GLU
8	1I	78	THR
8	1I	86	THR
8	1I	92	VAL
8	1I	101	LEU
8	1I	102	SER
8	1I	108	THR
8	1I	109	ILE
8	1I	116	LEU
8	1I	127	VAL
8	1I	140	LEU
9	1N	8	GLN
9	1N	12	ARG

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Mol	Chain	Res	Type
9	1N	14	VAL
9	1N	15	LEU
9	1N	19	GLU
9	1N	33	LEU
9	1N	48	MET
9	1N	60	ILE
9	1N	61	ARG
9	1N	62	VAL
9	1N	73	THR
9	1N	99	LEU
9	1N	140	VAL
10	1O	69	ILE
11	1P	1	MET
11	1P	15	ARG
11	1P	59	LEU
11	1P	75	ILE
11	1P	98	GLU
11	1P	99	LEU
11	1P	101	VAL
11	1P	125	VAL
11	1P	135	LEU
12	1Q	7	MET
12	1Q	55	VAL
12	1Q	59	ARG
12	1Q	60	ARG
12	1Q	75	THR
12	1Q	101	ARG
12	1Q	109	VAL
12	1Q	112	GLU
13	1R	29	LEU
13	1R	33	ARG
13	1R	36	THR
13	1R	44	LEU
13	1R	65	LEU
13	1R	96	ARG
13	1R	102	GLU
14	1S	3	ARG
14	1S	14	VAL
14	1S	46	VAL
14	1S	52	SER
14	1S	59	LYS
14	1S	67	ARG

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Mol	Chain	Res	Type
14	1S	73	LEU
14	1S	78	LEU
15	1T	28	VAL
15	1T	33	LYS
15	1T	34	VAL
15	1T	36	GLU
15	1T	49	VAL
15	1T	53	ARG
15	1T	89	VAL
15	1T	96	ARG
15	1T	118	ARG
15	1T	121	ILE
16	1U	74	LEU
16	1U	77	SER
16	1U	108	GLU
17	1V	44	LYS
17	1V	46	VAL
17	1V	52	VAL
17	1V	71	LEU
17	1V	72	VAL
17	1V	79	VAL
18	1W	11	ARG
18	1W	17	VAL
18	1W	23	LEU
19	1X	45	THR
19	1X	66	LEU
19	1X	68	ARG
19	1X	72	LYS
20	1Y	7	VAL
20	1Y	11	ASP
20	1Y	43	ASN
20	1Y	72	VAL
20	1Y	85	VAL
20	1Y	90	LEU
20	1Y	99	CYS
21	1Z	18	LEU
21	1Z	58	VAL
21	1Z	61	LEU
21	1Z	74	VAL
21	1Z	76	LEU
21	1Z	86	VAL
21	1Z	94	GLU

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Mol	Chain	Res	Type
21	1Z	98	MET
21	1Z	102	LEU
21	1Z	103	ARG
21	1Z	120	ILE
21	1Z	121	HIS
21	1Z	126	VAL
21	1Z	138	GLU
21	1Z	150	LEU
21	1Z	155	LEU
21	1Z	161	VAL
21	1Z	165	VAL
21	1Z	170	THR
21	1Z	171	ILE
22	10	55	ARG
22	10	59	LEU
22	10	74	ARG
23	11	3	LYS
23	11	21	ARG
23	11	30	VAL
23	11	40	ARG
23	11	46	LEU
23	11	69	LYS
23	11	94	LEU
24	12	1	MET
24	12	9	GLN
24	12	19	VAL
24	12	53	LEU
25	13	3	ARG
25	13	5	LYS
25	13	8	LEU
25	13	54	VAL
25	13	56	VAL
26	14	1	MET
26	14	21	VAL
26	14	33	VAL
26	14	46	GLN
26	14	49	PHE
26	14	50	VAL
26	14	52	THR
26	14	60	GLN
26	14	61	ARG
26	14	67	TYR

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Mol	Chain	Res	Type
27	15	6	VAL
27	15	16	ARG
27	15	26	THR
27	15	58	LEU
28	16	6	ARG
28	16	9	LEU
28	16	14	THR
28	16	48	VAL
28	16	52	VAL
29	17	43	THR
29	17	47	ARG
29	17	48	LYS
30	18	14	VAL
30	18	23	VAL
30	18	50	LEU
30	18	58	ILE
33	1b	7	VAL
33	1b	15	VAL
33	1b	21	ARG
33	1b	45	GLN
33	1b	52	GLU
33	1b	75	LYS
33	1b	80	ILE
33	1b	87	ARG
33	1b	96	ARG
33	1b	110	GLN
33	1b	111	ARG
33	1b	112	VAL
33	1b	121	LEU
33	1b	124	SER
33	1b	128	GLU
33	1b	135	GLN
33	1b	142	LEU
33	1b	145	LEU
33	1b	160	ASP
33	1b	185	ILE
33	1b	187	LEU
33	1b	189	ASP
33	1b	200	ILE
33	1b	212	GLN
33	1b	224	GLN
33	1b	229	VAL

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Mol	Chain	Res	Type
34	1c	3	ASN
34	1c	38	ARG
34	1c	70	VAL
34	1c	105	GLU
34	1c	130	VAL
34	1c	132	ARG
35	1d	5	ILE
35	1d	25	ARG
35	1d	58	LEU
35	1d	59	ARG
35	1d	67	ILE
35	1d	70	ILE
35	1d	77	ASN
35	1d	85	LYS
35	1d	127	THR
35	1d	132	ARG
35	1d	135	LEU
35	1d	144	ASP
35	1d	156	GLU
35	1d	157	LEU
35	1d	168	ARG
35	1d	178	VAL
35	1d	191	ARG
35	1d	194	LEU
35	1d	196	LEU
35	1d	201	GLN
36	1e	10	MET
36	1e	41	VAL
36	1e	55	VAL
36	1e	56	GLN
36	1e	65	ASN
36	1e	67	VAL
36	1e	68	GLU
36	1e	79	GLU
36	1e	100	VAL
36	1e	145	LYS
37	1f	17	SER
37	1f	23	LYS
37	1f	40	VAL
37	1f	45	LEU
37	1f	63	TYR
37	1f	64	GLN

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Mol	Chain	Res	Type
37	1f	69	GLU
37	1f	72	VAL
37	1f	73	ASN
37	1f	78	GLU
37	1f	86	ARG
37	1f	98	LEU
38	1g	6	ARG
38	1g	45	ASP
38	1g	51	GLN
38	1g	56	GLN
38	1g	90	GLU
38	1g	91	VAL
38	1g	96	GLN
38	1g	104	LEU
38	1g	113	GLU
38	1g	144	MET
39	1h	2	LEU
39	1h	24	THR
39	1h	25	ASP
39	1h	26	VAL
39	1h	39	LEU
39	1h	51	VAL
39	1h	52	ASP
39	1h	54	ASP
39	1h	63	LEU
39	1h	86	ILE
39	1h	104	ARG
39	1h	105	ARG
40	1i	14	VAL
40	1i	17	VAL
40	1i	41	VAL
40	1i	54	ASP
40	1i	65	VAL
40	1i	81	ILE
40	1i	92	TYR
40	1i	96	LEU
40	1i	103	THR
40	1i	104	ARG
40	1i	109	VAL
40	1i	127	LYS
41	1j	34	VAL
41	1j	38	ILE

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Mol	Chain	Res	Type
41	1j	67	THR
41	1j	84	GLN
41	1j	94	VAL
42	1k	14	VAL
42	1k	16	SER
42	1k	83	ILE
42	1k	104	GLN
42	1k	105	VAL
42	1k	107	SER
42	1k	109	VAL
42	1k	114	VAL
43	1l	13	LYS
43	1l	18	VAL
43	1l	41	ARG
43	1l	42	THR
43	1l	43	VAL
43	1l	83	VAL
43	1l	97	ARG
43	1l	118	SER
44	1m	3	ARG
44	1m	4	ILE
44	1m	15	VAL
44	1m	54	VAL
44	1m	56	LEU
44	1m	60	VAL
44	1m	70	LEU
44	1m	73	GLU
45	1n	13	THR
45	1n	15	LYS
45	1n	18	VAL
45	1n	33	VAL
45	1n	44	LEU
46	1o	39	LEU
46	1o	76	GLU
47	1p	11	SER
47	1p	20	VAL
47	1p	27	LYS
47	1p	29	ASP
47	1p	45	THR
47	1p	61	SER
47	1p	62	VAL
47	1p	74	LEU

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Mol	Chain	Res	Type
48	1q	16	GLN
48	1q	26	GLN
48	1q	43	LEU
48	1q	53	LEU
48	1q	60	ILE
48	1q	63	ARG
48	1q	85	VAL
49	1r	25	THR
49	1r	28	GLU
49	1r	39	VAL
49	1r	41	LYS
49	1r	76	LEU
50	1s	3	ARG
50	1s	28	LYS
50	1s	30	LEU
50	1s	38	SER
50	1s	40	ILE
50	1s	41	VAL
51	1t	10	LEU
51	1t	24	LEU
51	1t	62	LEU
51	1t	72	LEU
51	1t	74	LYS
51	1t	83	ARG
51	1t	84	LEU
53	1y	11	GLU
53	1y	23	ARG
53	1y	42	SER
53	1y	46	GLN
53	1y	60	VAL
53	1y	83	ARG
3	2D	3	VAL
3	2D	61	LEU
3	2D	69	ARG
3	2D	82	ILE
3	2D	88	ARG
3	2D	94	LEU
3	2D	103	ARG
3	2D	111	LEU
3	2D	113	VAL
3	2D	140	THR
3	2D	141	VAL

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Mol	Chain	Res	Type
3	2D	142	VAL
3	2D	147	LEU
3	2D	150	LYS
3	2D	162	SER
3	2D	173	VAL
3	2D	183	ARG
3	2D	211	ARG
3	2D	221	VAL
3	2D	229	VAL
3	2D	242	ARG
3	2D	274	ARG
4	2E	7	VAL
4	2E	9	VAL
4	2E	12	THR
4	2E	21	VAL
4	2E	59	VAL
4	2E	75	VAL
4	2E	89	ASP
4	2E	97	LYS
4	2E	116	VAL
4	2E	119	ARG
4	2E	134	ILE
4	2E	170	LEU
4	2E	175	VAL
4	2E	181	LEU
4	2E	199	ARG
5	2F	12	LEU
5	2F	20	LEU
5	2F	23	ASP
5	2F	33	LEU
5	2F	38	ARG
5	2F	57	VAL
5	2F	60	SER
5	2F	74	ARG
5	2F	88	VAL
5	2F	126	VAL
5	2F	132	VAL
5	2F	140	LEU
5	2F	158	THR
5	2F	168	ARG
5	2F	170	LEU
5	2F	175	THR

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Mol	Chain	Res	Type
5	2F	183	VAL
5	2F	192	LEU
5	2F	197	ASP
5	2F	201	VAL
5	2F	203	GLN
6	2G	3	LEU
6	2G	4	ASP
6	2G	5	VAL
6	2G	7	LEU
6	2G	28	VAL
6	2G	43	LEU
6	2G	49	ASP
6	2G	53	LEU
6	2G	60	LEU
6	2G	77	ILE
6	2G	92	VAL
6	2G	95	ARG
6	2G	106	LEU
6	2G	113	ARG
6	2G	115	ARG
6	2G	116	ASP
6	2G	126	ASP
6	2G	133	LEU
6	2G	139	LEU
6	2G	165	THR
6	2G	173	LEU
7	2H	27	LYS
7	2H	33	LEU
7	2H	42	ARG
7	2H	43	VAL
7	2H	44	VAL
7	2H	47	GLU
7	2H	49	VAL
7	2H	65	HIS
7	2H	71	LEU
7	2H	98	LEU
7	2H	105	LEU
7	2H	124	GLU
7	2H	134	SER
7	2H	139	GLN
8	2I	37	VAL
8	2I	38	LEU

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Mol	Chain	Res	Type
8	2I	66	GLU
8	2I	68	LEU
8	2I	75	LEU
8	2I	76	THR
8	2I	116	LEU
8	2I	117	GLU
8	2I	123	LEU
8	2I	140	LEU
9	2N	12	ARG
9	2N	28	THR
9	2N	34	LEU
9	2N	46	VAL
9	2N	48	MET
9	2N	62	VAL
9	2N	71	ILE
9	2N	87	LEU
9	2N	99	LEU
10	2O	22	ILE
10	2O	70	LYS
10	2O	71	ARG
10	2O	108	GLU
11	2P	15	ARG
11	2P	95	VAL
11	2P	99	LEU
11	2P	125	VAL
11	2P	149	GLU
12	2Q	2	LEU
12	2Q	6	ARG
12	2Q	55	VAL
12	2Q	60	ARG
12	2Q	98	LYS
12	2Q	109	VAL
12	2Q	110	THR
12	2Q	112	GLU
12	2Q	130	LYS
12	2Q	133	ARG
13	2R	29	LEU
13	2R	33	ARG
13	2R	36	THR
13	2R	44	LEU
13	2R	65	LEU
13	2R	114	VAL

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Mol	Chain	Res	Type
13	2R	117	VAL
14	2S	12	PHE
14	2S	14	VAL
14	2S	28	VAL
14	2S	35	ILE
14	2S	46	VAL
14	2S	50	SER
14	2S	64	GLU
14	2S	69	VAL
14	2S	78	LEU
14	2S	111	GLU
15	2T	6	LEU
15	2T	28	VAL
15	2T	34	VAL
15	2T	39	ARG
15	2T	78	LEU
15	2T	84	GLN
15	2T	89	VAL
15	2T	95	ARG
16	2U	5	LYS
16	2U	31	SER
16	2U	55	ARG
16	2U	59	ARG
16	2U	74	LEU
16	2U	101	ARG
16	2U	108	GLU
16	2U	117	GLN
17	2V	1	MET
17	2V	32	THR
17	2V	35	LEU
17	2V	46	VAL
17	2V	51	VAL
17	2V	53	GLU
17	2V	66	ARG
17	2V	72	VAL
17	2V	79	VAL
18	2W	11	ARG
18	2W	15	ARG
18	2W	17	VAL
18	2W	23	LEU
18	2W	60	ASN
18	2W	100	THR

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Mol	Chain	Res	Type
19	2X	60	ARG
20	2Y	3	VAL
20	2Y	30	VAL
20	2Y	34	LYS
20	2Y	35	TYR
20	2Y	70	SER
20	2Y	72	VAL
20	2Y	85	VAL
20	2Y	99	CYS
21	2Z	3	TYR
21	2Z	6	LYS
21	2Z	14	LYS
21	2Z	33	LEU
21	2Z	35	ARG
21	2Z	42	VAL
21	2Z	53	ILE
21	2Z	71	VAL
21	2Z	72	ARG
21	2Z	86	VAL
21	2Z	90	VAL
21	2Z	107	THR
21	2Z	121	HIS
21	2Z	142	SER
21	2Z	150	LEU
21	2Z	170	THR
21	2Z	175	VAL
21	2Z	198	LYS
22	20	10	THR
22	20	43	THR
22	20	59	LEU
22	20	68	GLU
23	21	4	VAL
23	21	11	ARG
23	21	21	ARG
23	21	40	ARG
23	21	51	VAL
23	21	62	VAL
23	21	95	LEU
23	21	97	LEU
24	22	32	LEU
24	22	35	LEU
25	23	31	LEU

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Mol	Chain	Res	Type
25	23	57	GLU
26	24	13	ARG
26	24	15	ILE
26	24	34	GLU
26	24	44	THR
26	24	50	VAL
26	24	53	GLU
26	24	60	GLN
26	24	61	ARG
26	24	63	TYR
27	25	6	VAL
27	25	35	GLU
27	25	55	ARG
28	26	14	THR
28	26	25	LYS
28	26	34	LEU
28	26	37	ARG
29	27	23	ARG
29	27	24	THR
29	27	43	THR
29	27	48	LYS
30	28	14	VAL
30	28	23	VAL
30	28	56	GLU
31	29	7	VAL
33	2b	7	VAL
33	2b	8	LYS
33	2b	19	HIS
33	2b	44	LEU
33	2b	58	ILE
33	2b	71	VAL
33	2b	76	GLN
33	2b	80	ILE
33	2b	93	VAL
33	2b	95	GLN
33	2b	96	ARG
33	2b	111	ARG
33	2b	118	LEU
33	2b	124	SER
33	2b	135	GLN
33	2b	144	ARG
33	2b	154	LEU

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Mol	Chain	Res	Type
33	2b	157	ARG
33	2b	160	ASP
33	2b	189	ASP
33	2b	195	ASP
33	2b	196	LEU
33	2b	197	VAL
33	2b	200	ILE
33	2b	215	LEU
33	2b	216	SER
33	2b	224	GLN
33	2b	229	VAL
33	2b	230	VAL
34	2c	3	ASN
34	2c	5	ILE
34	2c	32	LEU
34	2c	47	LEU
34	2c	67	THR
34	2c	101	LEU
34	2c	103	VAL
34	2c	105	GLU
34	2c	115	LEU
34	2c	127	ARG
34	2c	128	PHE
34	2c	152	ILE
34	2c	164	ARG
34	2c	195	VAL
34	2c	204	LEU
34	2c	206	GLU
34	2c	207	VAL
35	2d	3	ARG
35	2d	5	ILE
35	2d	17	VAL
35	2d	28	SER
35	2d	34	GLU
35	2d	83	SER
35	2d	105	VAL
35	2d	108	LEU
35	2d	122	ARG
35	2d	135	LEU
35	2d	140	VAL
35	2d	150	GLU
35	2d	155	LEU

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Mol	Chain	Res	Type
35	2d	157	LEU
35	2d	158	ILE
35	2d	166	LYS
35	2d	170	VAL
35	2d	175	SER
35	2d	202	LEU
36	2e	10	MET
36	2e	34	VAL
36	2e	41	VAL
36	2e	55	VAL
36	2e	65	ASN
36	2e	68	GLU
36	2e	75	THR
36	2e	91	LEU
36	2e	100	VAL
36	2e	115	VAL
36	2e	118	ILE
36	2e	143	ARG
37	2f	10	LEU
37	2f	37	VAL
37	2f	46	ARG
37	2f	63	TYR
37	2f	65	VAL
37	2f	69	GLU
37	2f	72	VAL
37	2f	73	ASN
37	2f	75	LEU
37	2f	83	ASP
37	2f	95	GLU
38	2g	4	ARG
38	2g	8	GLU
38	2g	15	ASP
38	2g	16	LEU
38	2g	21	VAL
38	2g	51	GLN
38	2g	75	VAL
38	2g	77	SER
38	2g	97	GLN
38	2g	109	ASN
38	2g	113	GLU
38	2g	114	ARG
38	2g	115	ARG

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Mol	Chain	Res	Type
38	2g	135	VAL
38	2g	137	LYS
38	2g	138	LYS
38	2g	144	MET
39	2h	33	GLU
39	2h	63	LEU
39	2h	91	ARG
39	2h	97	VAL
39	2h	112	LEU
39	2h	113	SER
39	2h	114	THR
39	2h	119	LEU
39	2h	121	ASP
39	2h	133	LEU
40	2i	17	VAL
40	2i	27	THR
40	2i	28	VAL
40	2i	53	VAL
40	2i	64	THR
40	2i	65	VAL
40	2i	81	ILE
40	2i	86	VAL
40	2i	102	LEU
40	2i	108	VAL
41	2j	29	ARG
41	2j	34	VAL
41	2j	38	ILE
41	2j	47	PHE
41	2j	74	ILE
41	2j	81	THR
41	2j	92	THR
42	2k	14	VAL
42	2k	16	SER
42	2k	30	VAL
42	2k	47	VAL
42	2k	53	SER
42	2k	83	ILE
42	2k	84	VAL
42	2k	91	ARG
42	2k	103	LEU
42	2k	105	VAL
42	2k	109	VAL

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Mol	Chain	Res	Type
42	2k	114	VAL
42	2k	117	ASN
43	2l	6	THR
43	2l	28	LYS
43	2l	36	VAL
43	2l	62	SER
43	2l	66	VAL
43	2l	81	SER
43	2l	83	VAL
43	2l	112	ASP
44	2m	17	VAL
44	2m	39	ILE
44	2m	48	LEU
44	2m	55	ARG
44	2m	60	VAL
44	2m	63	THR
44	2m	66	LEU
44	2m	81	LEU
44	2m	106	ASN
44	2m	116	THR
45	2n	7	ILE
45	2n	13	THR
45	2n	18	VAL
45	2n	33	VAL
45	2n	42	ILE
46	2o	5	LYS
46	2o	24	SER
46	2o	34	LEU
46	2o	39	LEU
46	2o	48	LYS
46	2o	59	MET
47	2p	2	VAL
47	2p	20	VAL
47	2p	21	VAL
47	2p	60	LEU
47	2p	62	VAL
47	2p	67	THR
47	2p	69	THR
48	2q	6	LEU
48	2q	39	SER
48	2q	53	LEU
48	2q	63	ARG

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Mol	Chain	Res	Type
48	2q	81	ARG
48	2q	99	SER
49	2r	25	THR
49	2r	41	LYS
49	2r	54	ARG
49	2r	55	ARG
49	2r	86	VAL
50	2s	30	LEU
50	2s	48	THR
50	2s	77	THR
50	2s	79	THR
51	2t	33	ILE
51	2t	36	LEU
51	2t	84	LEU
51	2t	100	ILE
53	2y	6	THR
53	2y	11	GLU
53	2y	13	THR
53	2y	16	ILE
53	2y	41	LEU
53	2y	46	GLN
53	2y	56	THR
53	2y	78	ILE
53	2y	96	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (140) such sidechains are listed below:

Mol	Chain	Res	Type
3	1D	253	GLN
4	1E	143	ASN
5	1F	8	GLN
5	1F	69	HIS
5	1F	203	GLN
5	1F	204	ASN
6	1G	26	GLN
6	1G	40	ASN
6	1G	132	ASN
8	1I	104	GLN
8	1I	105	HIS
9	1N	56	ASN
9	1N	94	HIS
9	1N	133	GLN

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Mol	Chain	Res	Type
10	1O	3	GLN
13	1R	50	HIS
14	1S	84	GLN
15	1T	58	ASN
15	1T	123	GLN
16	1U	72	HIS
18	1W	34	ASN
18	1W	60	ASN
19	1X	31	HIS
20	1Y	6	HIS
20	1Y	43	ASN
20	1Y	92	ASN
21	1Z	32	HIS
21	1Z	34	ASN
21	1Z	73	GLN
21	1Z	132	ASN
21	1Z	151	HIS
22	10	35	ASN
23	11	56	GLN
25	13	32	GLN
33	1b	40	HIS
33	1b	113	HIS
33	1b	224	GLN
34	1c	6	HIS
34	1c	102	ASN
34	1c	104	GLN
34	1c	108	ASN
34	1c	162	GLN
35	1d	77	ASN
35	1d	119	GLN
35	1d	123	HIS
35	1d	129	ASN
36	1e	20	GLN
36	1e	72	GLN
37	1f	7	ASN
37	1f	73	ASN
37	1f	100	ASN
38	1g	28	ASN
38	1g	56	GLN
38	1g	64	GLN
38	1g	96	GLN
38	1g	148	ASN

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Mol	Chain	Res	Type
40	1i	34	ASN
40	1i	73	GLN
41	1j	56	HIS
42	1k	93	GLN
43	1l	99	HIS
44	1m	40	ASN
46	1o	9	GLN
46	1o	28	GLN
48	1q	26	GLN
50	1s	83	HIS
51	1t	18	GLN
51	1t	75	ASN
53	1y	18	GLN
53	1y	38	HIS
3	2D	126	GLN
3	2D	129	ASN
3	2D	143	HIS
3	2D	253	GLN
4	2E	48	GLN
5	2F	69	HIS
5	2F	75	HIS
5	2F	133	ASN
8	2I	43	ASN
8	2I	104	GLN
9	2N	8	GLN
9	2N	94	HIS
9	2N	131	GLN
9	2N	133	GLN
12	2Q	12	GLN
12	2Q	13	GLN
12	2Q	89	ASN
12	2Q	123	HIS
12	2Q	141	GLN
15	2T	43	GLN
15	2T	58	ASN
15	2T	123	GLN
16	2U	94	ASN
18	2W	34	ASN
19	2X	31	HIS
19	2X	82	GLN
21	2Z	32	HIS
21	2Z	55	HIS

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Mol	Chain	Res	Type
21	2Z	151	HIS
24	22	56	GLN
25	23	32	GLN
26	24	60	GLN
30	28	35	GLN
33	2b	37	ASN
33	2b	78	GLN
33	2b	135	GLN
33	2b	212	GLN
34	2c	136	GLN
34	2c	176	HIS
35	2d	77	ASN
35	2d	116	GLN
35	2d	119	GLN
35	2d	123	HIS
36	2e	20	GLN
36	2e	65	ASN
36	2e	130	ASN
37	2f	73	ASN
37	2f	100	ASN
38	2g	13	GLN
38	2g	106	GLN
39	2h	81	HIS
39	2h	82	HIS
40	2i	3	GLN
40	2i	58	HIS
40	2i	117	HIS
42	2k	93	GLN
42	2k	104	GLN
43	2l	99	HIS
44	2m	12	ASN
44	2m	62	ASN
46	2o	9	GLN
46	2o	28	GLN
48	2q	26	GLN
50	2s	23	ASN
50	2s	83	HIS
51	2t	16	HIS
53	2y	36	ASN
53	2y	38	HIS
53	2y	55	ASN
53	2y	79	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	1A	2865/2915 (98%)	418 (14%)	32 (1%)
1	2A	2858/2915 (98%)	483 (16%)	36 (1%)
2	1B	119/121 (98%)	12 (10%)	0
2	2B	119/121 (98%)	16 (13%)	0
32	1a	1497/1521 (98%)	250 (16%)	0
32	2a	1501/1521 (98%)	264 (17%)	0
All	All	8959/9114 (98%)	1443 (16%)	68 (0%)

All (1443) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	1A	12	U
1	1A	13	A
1	1A	14	A
1	1A	15	G
1	1A	34	C
1	1A	45	C
1	1A	71	A
1	1A	74	A
1	1A	75	G
1	1A	94	C
1	1A	95	G
1	1A	118	A
1	1A	119	A
1	1A	120	U
1	1A	140	G
1	1A	181	A
1	1A	182	A
1	1A	196	A
1	1A	197	A
1	1A	205	G
1	1A	214	G
1	1A	215	G
1	1A	216	A
1	1A	221	A
1	1A	222	A
1	1A	229	A
1	1A	248	G
1	1A	265	A
1	1A	271(I)	G
1	1A	271(K)	U

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Mol	Chain	Res	Type
1	1A	271(L)	U
1	1A	271(M)	G
1	1A	271(N)	U
1	1A	271(O)	C
1	1A	272(A)	U
1	1A	272(B)	G
1	1A	275	G
1	1A	279	C
1	1A	283	A
1	1A	311	A
1	1A	330	A
1	1A	345	A
1	1A	352	G
1	1A	363	G
1	1A	386	G
1	1A	396	G
1	1A	405	U
1	1A	407	G
1	1A	411	G
1	1A	412	A
1	1A	422	A
1	1A	428	A
1	1A	429	A
1	1A	448	U
1	1A	451	C
1	1A	454	A
1	1A	456	C
1	1A	481	G
1	1A	494	G
1	1A	504	U
1	1A	505	A
1	1A	509	C
1	1A	528	A
1	1A	530	G
1	1A	531	C
1	1A	532	A
1	1A	533	G
1	1A	545	G
1	1A	549	G
1	1A	563	G
1	1A	573	G
1	1A	575	A

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Mol	Chain	Res	Type
1	1A	592	G
1	1A	603	A
1	1A	604	G
1	1A	607	U
1	1A	615	G
1	1A	627	A
1	1A	637	A
1	1A	645	C
1	1A	646	A
1	1A	652(E)	G
1	1A	652(T)	C
1	1A	652(U)	G
1	1A	686	G
1	1A	717	G
1	1A	730	C
1	1A	746	A
1	1A	747	U
1	1A	775	G
1	1A	776	G
1	1A	782	A
1	1A	783	A
1	1A	784	A
1	1A	785	G
1	1A	790	C
1	1A	792	G
1	1A	805	G
1	1A	812	C
1	1A	827	U
1	1A	828	U
1	1A	859	G
1	1A	866	A
1	1A	878	A
1	1A	879	G
1	1A	882	G
1	1A	884	C
1	1A	885	C
1	1A	886	C
1	1A	887	A
1	1A	889	C
1	1A	890	A
1	1A	892	G
1	1A	896	A

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Mol	Chain	Res	Type
1	1A	897	C
1	1A	910	A
1	1A	932	G
1	1A	945	A
1	1A	946	G
1	1A	953	A
1	1A	961	C
1	1A	974	G
1	1A	975	C
1	1A	983	A
1	1A	996	A
1	1A	1005	C
1	1A	1012	U
1	1A	1013	C
1	1A	1026	U
1	1A	1027	A
1	1A	1033	U
1	1A	1039	G
1	1A	1041	C
1	1A	1042	G
1	1A	1043	C
1	1A	1046	A
1	1A	1047	G
1	1A	1054	A
1	1A	1061	U
1	1A	1062	G
1	1A	1065	U
1	1A	1068	G
1	1A	1069	A
1	1A	1070	A
1	1A	1071	G
1	1A	1072	C
1	1A	1073	A
1	1A	1074	G
1	1A	1075	C
1	1A	1076	C
1	1A	1077	A
1	1A	1079	C
1	1A	1083	U
1	1A	1087	G
1	1A	1088	A
1	1A	1090	U

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Mol	Chain	Res	Type
1	1A	1097	U
1	1A	1098	A
1	1A	1101	U
1	1A	1109	C
1	1A	1110	G
1	1A	1112	G
1	1A	1116	C
1	1A	1128	A
1	1A	1129	A
1	1A	1130	U
1	1A	1135	C
1	1A	1136	G
1	1A	1155	A
1	1A	1170	G
1	1A	1171	G
1	1A	1173	G
1	1A	1174	A
1	1A	1175	U
1	1A	1176	G
1	1A	1177	A
1	1A	1178	C
1	1A	1180	C
1	1A	1210	A
1	1A	1211	U
1	1A	1220	A
1	1A	1229	G
1	1A	1241	A
1	1A	1253	A
1	1A	1256	G
1	1A	1271	G
1	1A	1272	A
1	1A	1273	U
1	1A	1300	U
1	1A	1301	A
1	1A	1303	G
1	1A	1345	C
1	1A	1352	U
1	1A	1359	A
1	1A	1365	A
1	1A	1370	C
1	1A	1380	G
1	1A	1384	A

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Mol	Chain	Res	Type
1	1A	1385	G
1	1A	1416	G
1	1A	1417	C
1	1A	1420	U
1	1A	1421	G
1	1A	1428	C
1	1A	1445	A
1	1A	1450	G
1	1A	1452	A
1	1A	1459	G
1	1A	1467	C
1	1A	1471	A
1	1A	1478	G
1	1A	1482	G
1	1A	1495	A
1	1A	1508	A
1	1A	1509(A)	A
1	1A	1523	U
1	1A	1525	G
1	1A	1531	C
1	1A	1532	C
1	1A	1542	A
1	1A	1543	C
1	1A	1554	A
1	1A	1558	A
1	1A	1566	A
1	1A	1569	A
1	1A	1578	U
1	1A	1579	A
1	1A	1581	G
1	1A	1582	C
1	1A	1584	C
1	1A	1586	A
1	1A	1608	A
1	1A	1609	A
1	1A	1610	A
1	1A	1613	G
1	1A	1644	C
1	1A	1648	C
1	1A	1654	A
1	1A	1664	A
1	1A	1674	G

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Mol	Chain	Res	Type
1	1A	1696	G
1	1A	1700	A
1	1A	1701	A
1	1A	1721	G
1	1A	1722	A
1	1A	1739	U
1	1A	1740	G
1	1A	1746	G
1	1A	1762	A
1	1A	1763	G
1	1A	1764	G
1	1A	1773	A
1	1A	1780	A
1	1A	1782	C
1	1A	1791	A
1	1A	1800	C
1	1A	1801	G
1	1A	1816	G
1	1A	1817	G
1	1A	1820	U
1	1A	1828	G
1	1A	1829	A
1	1A	1839	G
1	1A	1847	A
1	1A	1877	A
1	1A	1878	G
1	1A	1900	A
1	1A	1906	G
1	1A	1913	A
1	1A	1915	5MU
1	1A	1929	G
1	1A	1930	G
1	1A	1937	A
1	1A	1938	A
1	1A	1941	C
1	1A	1955	U
1	1A	1963	U
1	1A	1965	C
1	1A	1967	C
1	1A	1970	A
1	1A	1971	A
1	1A	1972	A

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Mol	Chain	Res	Type
1	1A	1993	U
1	1A	1997	G
1	1A	2020	A
1	1A	2023	G
1	1A	2031	A
1	1A	2032	G
1	1A	2033	A
1	1A	2043	C
1	1A	2049	G
1	1A	2055	C
1	1A	2056	G
1	1A	2060	A
1	1A	2061	G
1	1A	2069	G
1	1A	2099	U
1	1A	2103	C
1	1A	2107	C
1	1A	2108	C
1	1A	2111	C
1	1A	2112	G
1	1A	2116	G
1	1A	2117	A
1	1A	2119	A
1	1A	2123	G
1	1A	2126	A
1	1A	2127	G
1	1A	2128	C
1	1A	2131	G
1	1A	2132	U
1	1A	2133	G
1	1A	2134	A
1	1A	2135	A
1	1A	2137	C
1	1A	2138	C
1	1A	2139	C
1	1A	2145	C
1	1A	2146	C
1	1A	2157	G
1	1A	2158	A
1	1A	2159	G
1	1A	2162	G
1	1A	2164	C

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Mol	Chain	Res	Type
1	1A	2171	A
1	1A	2173	A
1	1A	2178	C
1	1A	2181	G
1	1A	2187	G
1	1A	2190	G
1	1A	2191	G
1	1A	2192	G
1	1A	2198	A
1	1A	2206	G
1	1A	2207	G
1	1A	2208	A
1	1A	2225	A
1	1A	2238	G
1	1A	2239	G
1	1A	2268	A
1	1A	2280	G
1	1A	2283	C
1	1A	2287	A
1	1A	2289	G
1	1A	2305	A
1	1A	2308	G
1	1A	2319	G
1	1A	2320	A
1	1A	2325	G
1	1A	2334	G
1	1A	2336	A
1	1A	2347	C
1	1A	2350	C
1	1A	2383	G
1	1A	2385	C
1	1A	2393	A
1	1A	2406	U
1	1A	2407	G
1	1A	2422	A
1	1A	2424	C
1	1A	2425	A
1	1A	2428	G
1	1A	2429	G
1	1A	2430	A
1	1A	2431	U
1	1A	2435	A

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Mol	Chain	Res	Type
1	1A	2439	A
1	1A	2440	C
1	1A	2441	C
1	1A	2447	G
1	1A	2448	A
1	1A	2468	G
1	1A	2476	A
1	1A	2491	U
1	1A	2502	G
1	1A	2505	G
1	1A	2506	U
1	1A	2518	A
1	1A	2529	G
1	1A	2535	G
1	1A	2554	U
1	1A	2566	A
1	1A	2567	G
1	1A	2573	C
1	1A	2602	A
1	1A	2603	G
1	1A	2609	U
1	1A	2611	U
1	1A	2612	C
1	1A	2629	A
1	1A	2630	G
1	1A	2662	A
1	1A	2689	U
1	1A	2690	C
1	1A	2703	C
1	1A	2712(A)	A
1	1A	2713	A
1	1A	2714	G
1	1A	2726	U
1	1A	2733	A
1	1A	2757	A
1	1A	2760	C
1	1A	2765	A
1	1A	2766	G
1	1A	2778	A
1	1A	2789	C
1	1A	2790	A
1	1A	2791	C

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Mol	Chain	Res	Type
1	1A	2802	G
1	1A	2818	G
1	1A	2820	A
1	1A	2821	A
1	1A	2833	G
1	1A	2835	A
1	1A	2872	G
1	1A	2880	C
1	1A	2892	A
1	1A	2894	G
2	1B	2	C
2	1B	7	G
2	1B	9	G
2	1B	13	A
2	1B	45	A
2	1B	53	A
2	1B	56	G
2	1B	73	A
2	1B	84	C
2	1B	91	C
2	1B	106	G
2	1B	110	G
32	1a	9	G
32	1a	32	A
32	1a	39	G
32	1a	47	C
32	1a	48	C
32	1a	50	A
32	1a	51	A
32	1a	55	A
32	1a	61	G
32	1a	79	G
32	1a	101	A
32	1a	115	G
32	1a	116	A
32	1a	121	C
32	1a	131	C
32	1a	143	A
32	1a	144	G
32	1a	163	C
32	1a	173	U
32	1a	174	C

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Mol	Chain	Res	Type
32	1a	182	U
32	1a	195	A
32	1a	197	A
32	1a	202	U
32	1a	203	U
32	1a	216	G
32	1a	220	G
32	1a	231	G
32	1a	247	G
32	1a	251	G
32	1a	262	A
32	1a	266	G
32	1a	267	C
32	1a	289	G
32	1a	316	G
32	1a	318	G
32	1a	321	A
32	1a	328	C
32	1a	329	A
32	1a	332	G
32	1a	348	G
32	1a	351	G
32	1a	352	C
32	1a	353	A
32	1a	354	G
32	1a	356	A
32	1a	367	U
32	1a	372	C
32	1a	373	A
32	1a	398	C
32	1a	406	G
32	1a	412	A
32	1a	413	G
32	1a	423	G
32	1a	424	G
32	1a	427	U
32	1a	429	U
32	1a	430	A
32	1a	439	A
32	1a	442	C
32	1a	452	A
32	1a	458	C

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Mol	Chain	Res	Type
32	1a	461	A
32	1a	470	C
32	1a	471	G
32	1a	475	G
32	1a	477	A
32	1a	480	U
32	1a	483	C
32	1a	484	G
32	1a	485	G
32	1a	492	G
32	1a	496	A
32	1a	498	U
32	1a	505	G
32	1a	509	A
32	1a	510	A
32	1a	511	C
32	1a	518	C
32	1a	532	A
32	1a	547	A
32	1a	550	G
32	1a	559	A
32	1a	561	U
32	1a	562	C
32	1a	564	C
32	1a	572	A
32	1a	573	A
32	1a	576	G
32	1a	577	G
32	1a	596	C
32	1a	607	A
32	1a	619	U
32	1a	630	G
32	1a	631	G
32	1a	632	A
32	1a	633	G
32	1a	642	A
32	1a	649	G
32	1a	653	A
32	1a	665	A
32	1a	687	A
32	1a	688	G
32	1a	723	U

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Mol	Chain	Res	Type
32	1a	731	G
32	1a	734	G
32	1a	755	G
32	1a	759	A
32	1a	774	G
32	1a	777	A
32	1a	793	U
32	1a	794	A
32	1a	815	A
32	1a	817	C
32	1a	821	G
32	1a	826	C
32	1a	828	A
32	1a	829	G
32	1a	839	U
32	1a	840	C
32	1a	841	U
32	1a	851	G
32	1a	870	U
32	1a	874	G
32	1a	914	A
32	1a	916	G
32	1a	926	G
32	1a	927	G
32	1a	934	C
32	1a	935	A
32	1a	960	U
32	1a	961	U
32	1a	968	A
32	1a	969	A
32	1a	971	G
32	1a	975	A
32	1a	976	G
32	1a	977	A
32	1a	991	U
32	1a	992	U
32	1a	993	G
32	1a	994	A
32	1a	998	G
32	1a	999	C
32	1a	1001(A)	G
32	1a	1002	G

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Mol	Chain	Res	Type
32	1a	1004	A
32	1a	1009	G
32	1a	1022	G
32	1a	1023	G
32	1a	1024	G
32	1a	1025	U
32	1a	1026	G
32	1a	1027	C
32	1a	1028	C
32	1a	1029	C
32	1a	1030	C
32	1a	1030(A)	G
32	1a	1030(B)	C
32	1a	1030(C)	G
32	1a	1032	G
32	1a	1033	G
32	1a	1037	C
32	1a	1042	G
32	1a	1044	A
32	1a	1053	G
32	1a	1065	U
32	1a	1066	C
32	1a	1067	A
32	1a	1081	G
32	1a	1094	G
32	1a	1095	U
32	1a	1101	A
32	1a	1124	G
32	1a	1130	A
32	1a	1132	C
32	1a	1133	G
32	1a	1134	G
32	1a	1136	U
32	1a	1137	C
32	1a	1138	G
32	1a	1139	G
32	1a	1146	A
32	1a	1149	C
32	1a	1150	U
32	1a	1152	A
32	1a	1159	U
32	1a	1163	C

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Mol	Chain	Res	Type
32	1a	1166	G
32	1a	1168	A
32	1a	1183	A
32	1a	1184	G
32	1a	1196	U
32	1a	1197	G
32	1a	1202	G
32	1a	1212	U
32	1a	1213	A
32	1a	1224	G
32	1a	1225	A
32	1a	1227	A
32	1a	1238	A
32	1a	1248	A
32	1a	1250	A
32	1a	1256	A
32	1a	1257	U
32	1a	1258	G
32	1a	1263	C
32	1a	1270	C
32	1a	1273	G
32	1a	1278	U
32	1a	1279	A
32	1a	1280	A
32	1a	1286	A
32	1a	1287	A
32	1a	1299	A
32	1a	1300	G
32	1a	1302	U
32	1a	1305	G
32	1a	1312	G
32	1a	1320	C
32	1a	1322	C
32	1a	1338	G
32	1a	1340	A
32	1a	1346	A
32	1a	1347	G
32	1a	1353	G
32	1a	1363	C
32	1a	1364	U
32	1a	1370	G
32	1a	1379	G

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Mol	Chain	Res	Type
32	1a	1397	C
32	1a	1419	G
32	1a	1442	G
32	1a	1442(A)	G
32	1a	1447	A
32	1a	1456	G
32	1a	1458	G
32	1a	1469	G
32	1a	1492	A
32	1a	1493	A
32	1a	1499	A
32	1a	1503	A
32	1a	1505	G
32	1a	1506	U
32	1a	1517	G
32	1a	1519	MA6
32	1a	1520	G
32	1a	1529	G
32	1a	1530	G
32	1a	1531	A
1	2A	10	G
1	2A	12	U
1	2A	15	G
1	2A	34	C
1	2A	45	C
1	2A	50	U
1	2A	61	G
1	2A	64	A
1	2A	71	A
1	2A	74	A
1	2A	75	G
1	2A	84	A
1	2A	102	G
1	2A	118	A
1	2A	119	A
1	2A	120	U
1	2A	131	G
1	2A	141	A
1	2A	157	U
1	2A	173	G
1	2A	181	A
1	2A	182	A

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Mol	Chain	Res	Type
1	2A	196	A
1	2A	197	A
1	2A	199	A
1	2A	205	G
1	2A	214	G
1	2A	215	G
1	2A	216	A
1	2A	221	A
1	2A	222	A
1	2A	229	A
1	2A	230	U
1	2A	248	G
1	2A	271(K)	U
1	2A	271(L)	U
1	2A	271(M)	G
1	2A	271(N)	U
1	2A	271(O)	C
1	2A	272(A)	U
1	2A	272(B)	G
1	2A	277	C
1	2A	278	A
1	2A	311	A
1	2A	324	A
1	2A	329	G
1	2A	330	A
1	2A	342	G
1	2A	352	G
1	2A	363	G
1	2A	386	G
1	2A	396	G
1	2A	406	G
1	2A	411	G
1	2A	412	A
1	2A	428	A
1	2A	444	C
1	2A	454	A
1	2A	455	C
1	2A	457	A
1	2A	470	A
1	2A	471	A
1	2A	481	G
1	2A	505	A

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Mol	Chain	Res	Type
1	2A	508	G
1	2A	509	C
1	2A	530	G
1	2A	531	C
1	2A	532	A
1	2A	533	G
1	2A	545	G
1	2A	551	G
1	2A	556	G
1	2A	563	G
1	2A	573	G
1	2A	575	A
1	2A	586	A
1	2A	603	A
1	2A	604	G
1	2A	607	U
1	2A	614(B)	G
1	2A	614(C)	A
1	2A	615	G
1	2A	616	G
1	2A	627	A
1	2A	631	A
1	2A	634	C
1	2A	637	A
1	2A	645	C
1	2A	646	A
1	2A	652(B)	A
1	2A	652(C)	G
1	2A	652(U)	G
1	2A	669	G
1	2A	686	G
1	2A	715	G
1	2A	717	G
1	2A	730	C
1	2A	740	U
1	2A	752	A
1	2A	753	C
1	2A	764	A
1	2A	765	G
1	2A	775	G
1	2A	776	G
1	2A	782	A

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Mol	Chain	Res	Type
1	2A	784	A
1	2A	785	G
1	2A	792	G
1	2A	805	G
1	2A	812	C
1	2A	815	C
1	2A	827	U
1	2A	828	U
1	2A	857	C
1	2A	859	G
1	2A	869	G
1	2A	878	A
1	2A	880	G
1	2A	886	C
1	2A	887	A
1	2A	888	C
1	2A	889	C
1	2A	890	A
1	2A	893	C
1	2A	896	A
1	2A	897	C
1	2A	899	A
1	2A	900	A
1	2A	901	A
1	2A	910	A
1	2A	914	C
1	2A	915	C
1	2A	917	A
1	2A	932	G
1	2A	938	G
1	2A	941	A
1	2A	945	A
1	2A	946	G
1	2A	959	A
1	2A	961	C
1	2A	963	U
1	2A	974	G
1	2A	975	C
1	2A	983	A
1	2A	996	A
1	2A	1006	C
1	2A	1012	U

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Mol	Chain	Res	Type
1	2A	1013	C
1	2A	1026	U
1	2A	1033	U
1	2A	1041	C
1	2A	1043	C
1	2A	1044	G
1	2A	1045	A
1	2A	1046	A
1	2A	1047	G
1	2A	1048	A
1	2A	1052	C
1	2A	1053	C
1	2A	1054	A
1	2A	1057	A
1	2A	1058	G
1	2A	1060	U
1	2A	1064	C
1	2A	1065	U
1	2A	1066	U
1	2A	1067	A
1	2A	1068	G
1	2A	1070	A
1	2A	1071	G
1	2A	1073	A
1	2A	1074	G
1	2A	1076	C
1	2A	1077	A
1	2A	1078	U
1	2A	1079	C
1	2A	1082	U
1	2A	1083	U
1	2A	1084	A
1	2A	1085	A
1	2A	1086	A
1	2A	1088	A
1	2A	1090	U
1	2A	1091	G
1	2A	1092	C
1	2A	1093	G
1	2A	1094	U
1	2A	1096	A
1	2A	1109	C

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Mol	Chain	Res	Type
1	2A	1110	G
1	2A	1111	A
1	2A	1112	G
1	2A	1114	G
1	2A	1116	C
1	2A	1117	G
1	2A	1129	A
1	2A	1130	U
1	2A	1135	C
1	2A	1136	G
1	2A	1171	G
1	2A	1195	G
1	2A	1211	U
1	2A	1212	G
1	2A	1220	A
1	2A	1230	C
1	2A	1236	G
1	2A	1244	G
1	2A	1253	A
1	2A	1256	G
1	2A	1271	G
1	2A	1272	A
1	2A	1273	U
1	2A	1300	U
1	2A	1301	A
1	2A	1303	G
1	2A	1314	C
1	2A	1319	G
1	2A	1321	A
1	2A	1352	U
1	2A	1359	A
1	2A	1360	A
1	2A	1365	A
1	2A	1370	C
1	2A	1380	G
1	2A	1384	A
1	2A	1385	G
1	2A	1416	G
1	2A	1417	C
1	2A	1420	U
1	2A	1421	G
1	2A	1428	C

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Mol	Chain	Res	Type
1	2A	1445	A
1	2A	1450	G
1	2A	1455	G
1	2A	1459	G
1	2A	1461	G
1	2A	1467	C
1	2A	1471	A
1	2A	1482	G
1	2A	1490	A
1	2A	1493	C
1	2A	1497	U
1	2A	1504	C
1	2A	1508	A
1	2A	1509	C
1	2A	1509(A)	A
1	2A	1509(B)	A
1	2A	1525	G
1	2A	1531	C
1	2A	1533	G
1	2A	1542	A
1	2A	1543	C
1	2A	1547	C
1	2A	1558	A
1	2A	1566	A
1	2A	1569	A
1	2A	1578	U
1	2A	1579	A
1	2A	1580	A
1	2A	1583	A
1	2A	1584	C
1	2A	1586	A
1	2A	1593	G
1	2A	1595	G
1	2A	1608	A
1	2A	1609	A
1	2A	1639	U
1	2A	1640	C
1	2A	1648	C
1	2A	1664	A
1	2A	1674	G
1	2A	1696	G
1	2A	1700	A

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Mol	Chain	Res	Type
1	2A	1701	A
1	2A	1703	G
1	2A	1711	C
1	2A	1721	G
1	2A	1722	A
1	2A	1740	G
1	2A	1746	G
1	2A	1756	G
1	2A	1763	G
1	2A	1764	G
1	2A	1773	A
1	2A	1780	A
1	2A	1782	C
1	2A	1791	A
1	2A	1800	C
1	2A	1801	G
1	2A	1816	G
1	2A	1839	G
1	2A	1847	A
1	2A	1848	A
1	2A	1877	A
1	2A	1878	G
1	2A	1889	A
1	2A	1900	A
1	2A	1906	G
1	2A	1914	C
1	2A	1919	A
1	2A	1927	A
1	2A	1929	G
1	2A	1930	G
1	2A	1937	A
1	2A	1938	A
1	2A	1955	U
1	2A	1963	U
1	2A	1967	C
1	2A	1970	A
1	2A	1971	A
1	2A	1972	A
1	2A	1975	G
1	2A	1984	G
1	2A	1993	U
1	2A	1997	G

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Mol	Chain	Res	Type
1	2A	2020	A
1	2A	2023	G
1	2A	2031	A
1	2A	2032	G
1	2A	2033	A
1	2A	2043	C
1	2A	2055	C
1	2A	2056	G
1	2A	2060	A
1	2A	2061	G
1	2A	2062	A
1	2A	2069	G
1	2A	2103	C
1	2A	2104	G
1	2A	2105	C
1	2A	2107	C
1	2A	2108	C
1	2A	2109	U
1	2A	2112	G
1	2A	2115	G
1	2A	2116	G
1	2A	2117	A
1	2A	2118	U
1	2A	2119	A
1	2A	2120	G
1	2A	2121	G
1	2A	2123	G
1	2A	2127	G
1	2A	2129	C
1	2A	2132	U
1	2A	2133	G
1	2A	2134	A
1	2A	2136	C
1	2A	2138	C
1	2A	2142	C
1	2A	2145	C
1	2A	2146	C
1	2A	2147	G
1	2A	2148	G
1	2A	2150	U
1	2A	2151	G
1	2A	2157	G

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Mol	Chain	Res	Type
1	2A	2158	A
1	2A	2161	C
1	2A	2163	C
1	2A	2164	C
1	2A	2165	G
1	2A	2167	U
1	2A	2168	G
1	2A	2172	U
1	2A	2173	A
1	2A	2176	A
1	2A	2178	C
1	2A	2183	C
1	2A	2184	G
1	2A	2186	G
1	2A	2187	G
1	2A	2189	U
1	2A	2190	G
1	2A	2192	G
1	2A	2198	A
1	2A	2206	G
1	2A	2207	G
1	2A	2208	A
1	2A	2218	U
1	2A	2219	G
1	2A	2225	A
1	2A	2239	G
1	2A	2268	A
1	2A	2269	A
1	2A	2275	C
1	2A	2279	G
1	2A	2283	C
1	2A	2287	A
1	2A	2289	G
1	2A	2305	A
1	2A	2308	G
1	2A	2311	A
1	2A	2319	G
1	2A	2320	A
1	2A	2321	G
1	2A	2322	A
1	2A	2325	G
1	2A	2334	G

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Mol	Chain	Res	Type
1	2A	2335	A
1	2A	2343	C
1	2A	2347	C
1	2A	2350	C
1	2A	2354	G
1	2A	2379	G
1	2A	2383	G
1	2A	2385	C
1	2A	2388	A
1	2A	2396	G
1	2A	2406	U
1	2A	2407	G
1	2A	2410	G
1	2A	2422	A
1	2A	2423	U
1	2A	2425	A
1	2A	2429	G
1	2A	2430	A
1	2A	2435	A
1	2A	2439	A
1	2A	2441	C
1	2A	2448	A
1	2A	2465	C
1	2A	2468	G
1	2A	2470	G
1	2A	2475	C
1	2A	2476	A
1	2A	2487	G
1	2A	2491	U
1	2A	2494	G
1	2A	2497	A
1	2A	2502	G
1	2A	2505	G
1	2A	2506	U
1	2A	2518	A
1	2A	2529	G
1	2A	2554	U
1	2A	2555	U
1	2A	2566	A
1	2A	2567	G
1	2A	2573	C
1	2A	2578	G

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Mol	Chain	Res	Type
1	2A	2602	A
1	2A	2603	G
1	2A	2611	U
1	2A	2612	C
1	2A	2615	U
1	2A	2629	A
1	2A	2630	G
1	2A	2654	A
1	2A	2663	G
1	2A	2682	U
1	2A	2689	U
1	2A	2690	C
1	2A	2691	C
1	2A	2702	U
1	2A	2703	C
1	2A	2712(A)	A
1	2A	2713	A
1	2A	2714	G
1	2A	2726	U
1	2A	2733	A
1	2A	2744	G
1	2A	2757	A
1	2A	2758	A
1	2A	2764	A
1	2A	2765	A
1	2A	2778	A
1	2A	2789	C
1	2A	2802	G
1	2A	2803	C
1	2A	2818	G
1	2A	2820	A
1	2A	2821	A
1	2A	2833	G
1	2A	2835	A
1	2A	2849	U
1	2A	2872	G
1	2A	2880	C
1	2A	2891	G
1	2A	2894	G
1	2A	2896	C
1	2A	2897	U
2	2B	7	G

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Mol	Chain	Res	Type
2	2B	8	U
2	2B	9	G
2	2B	12	C
2	2B	13	A
2	2B	30	C
2	2B	33	G
2	2B	35	U
2	2B	42	C
2	2B	45	A
2	2B	51	G
2	2B	56	G
2	2B	73	A
2	2B	84	C
2	2B	106	G
2	2B	110	G
32	2a	5	U
32	2a	9	G
32	2a	32	A
32	2a	39	G
32	2a	47	C
32	2a	48	C
32	2a	50	A
32	2a	51	A
32	2a	61	G
32	2a	66	G
32	2a	78	G
32	2a	88	A
32	2a	89	C
32	2a	101	A
32	2a	116	A
32	2a	120	A
32	2a	121	C
32	2a	129(A)	G
32	2a	131	C
32	2a	146	G
32	2a	156	G
32	2a	163	C
32	2a	173	U
32	2a	174	C
32	2a	182	U
32	2a	189(C)	C
32	2a	189(F)	U

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Mol	Chain	Res	Type
32	2a	195	A
32	2a	197	A
32	2a	202	U
32	2a	203	U
32	2a	204	U
32	2a	216	G
32	2a	220	G
32	2a	247	G
32	2a	250	A
32	2a	251	G
32	2a	258	G
32	2a	266	G
32	2a	267	C
32	2a	289	G
32	2a	298	A
32	2a	321	A
32	2a	328	C
32	2a	332	G
32	2a	351	G
32	2a	352	C
32	2a	353	A
32	2a	354	G
32	2a	367	U
32	2a	372	C
32	2a	373	A
32	2a	384	G
32	2a	397	A
32	2a	398	C
32	2a	406	G
32	2a	412	A
32	2a	413	G
32	2a	421	U
32	2a	424	G
32	2a	429	U
32	2a	430	A
32	2a	438	G
32	2a	439	A
32	2a	442	C
32	2a	443	C
32	2a	451	A
32	2a	452	A
32	2a	461	A

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Mol	Chain	Res	Type
32	2a	470	C
32	2a	471	G
32	2a	476	G
32	2a	482	A
32	2a	484	G
32	2a	485	G
32	2a	496	A
32	2a	498	U
32	2a	505	G
32	2a	506	G
32	2a	509	A
32	2a	510	A
32	2a	511	C
32	2a	518	C
32	2a	527	G7M
32	2a	531	U
32	2a	532	A
32	2a	533	A
32	2a	547	A
32	2a	550	G
32	2a	559	A
32	2a	561	U
32	2a	572	A
32	2a	573	A
32	2a	576	G
32	2a	596	C
32	2a	630	G
32	2a	631	G
32	2a	650	G
32	2a	653	A
32	2a	665	A
32	2a	666	G
32	2a	687	A
32	2a	688	G
32	2a	695	A
32	2a	723	U
32	2a	724	G
32	2a	731	G
32	2a	749	C
32	2a	753	A
32	2a	755	G
32	2a	773	G

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Mol	Chain	Res	Type
32	2a	774	G
32	2a	777	A
32	2a	793	U
32	2a	794	A
32	2a	816	A
32	2a	817	C
32	2a	821	G
32	2a	828	A
32	2a	829	G
32	2a	836	G
32	2a	840	C
32	2a	841	U
32	2a	851	G
32	2a	854	G
32	2a	859	A
32	2a	914	A
32	2a	916	G
32	2a	926	G
32	2a	927	G
32	2a	931	C
32	2a	934	C
32	2a	942	G
32	2a	960	U
32	2a	961	U
32	2a	966	M2G
32	2a	968	A
32	2a	969	A
32	2a	971	G
32	2a	972	C
32	2a	974	A
32	2a	975	A
32	2a	976	G
32	2a	977	A
32	2a	978	A
32	2a	980	C
32	2a	983	A
32	2a	989	C
32	2a	992	U
32	2a	993	G
32	2a	994	A
32	2a	1004	A
32	2a	1005	A

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Mol	Chain	Res	Type
32	2a	1006	C
32	2a	1007	C
32	2a	1009	G
32	2a	1017	G
32	2a	1020	U
32	2a	1025	U
32	2a	1026	G
32	2a	1028	C
32	2a	1029	C
32	2a	1030(A)	G
32	2a	1030(B)	C
32	2a	1033	G
32	2a	1041	A
32	2a	1043	C
32	2a	1044	A
32	2a	1053	G
32	2a	1054	C
32	2a	1065	U
32	2a	1066	C
32	2a	1068	G
32	2a	1081	G
32	2a	1086	U
32	2a	1094	G
32	2a	1095	U
32	2a	1101	A
32	2a	1105	A
32	2a	1113	C
32	2a	1117	G
32	2a	1118	C
32	2a	1122	U
32	2a	1125	U
32	2a	1129	C
32	2a	1130	A
32	2a	1134	G
32	2a	1136	U
32	2a	1137	C
32	2a	1139	G
32	2a	1147	C
32	2a	1152	A
32	2a	1157	A
32	2a	1159	U
32	2a	1160	G

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Mol	Chain	Res	Type
32	2a	1162	C
32	2a	1171	G
32	2a	1172	C
32	2a	1176	A
32	2a	1183	A
32	2a	1184	G
32	2a	1196	U
32	2a	1197	G
32	2a	1202	G
32	2a	1203	C
32	2a	1208	C
32	2a	1212	U
32	2a	1214	C
32	2a	1224	G
32	2a	1227	A
32	2a	1236	A
32	2a	1238	A
32	2a	1256	A
32	2a	1257	U
32	2a	1258	G
32	2a	1260	C
32	2a	1270	C
32	2a	1278	U
32	2a	1279	A
32	2a	1281	U
32	2a	1282	C
32	2a	1285	A
32	2a	1286	A
32	2a	1287	A
32	2a	1300	G
32	2a	1302	U
32	2a	1303	C
32	2a	1305	G
32	2a	1306	A
32	2a	1312	G
32	2a	1319	A
32	2a	1320	C
32	2a	1323	G
32	2a	1340	A
32	2a	1346	A
32	2a	1347	G
32	2a	1353	G

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Mol	Chain	Res	Type
32	2a	1358	U
32	2a	1359	C
32	2a	1363	C
32	2a	1364	U
32	2a	1370	G
32	2a	1375	A
32	2a	1397	C
32	2a	1419	G
32	2a	1442	G
32	2a	1442(A)	G
32	2a	1446	U
32	2a	1447	A
32	2a	1456	G
32	2a	1457	G
32	2a	1487	G
32	2a	1492	A
32	2a	1497	G
32	2a	1499	A
32	2a	1503	A
32	2a	1504	G
32	2a	1506	U
32	2a	1507	A
32	2a	1517	G
32	2a	1520	G
32	2a	1528	U
32	2a	1529	G
32	2a	1530	G

All (68) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	1A	199	A
1	1A	266	G
1	1A	271(K)	U
1	1A	278	A
1	1A	746	A
1	1A	764	A
1	1A	839	U
1	1A	895	U
1	1A	974	G
1	1A	1065	U
1	1A	1142(A)	A

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Mol	Chain	Res	Type
1	1A	1175	U
1	1A	1176	G
1	1A	1210	A
1	1A	1300	U
1	1A	1301	A
1	1A	1379	A
1	1A	1442	G
1	1A	1608	A
1	1A	1653	G
1	1A	1663	C
1	1A	1929	G
1	1A	2126	A
1	1A	2288	A
1	1A	2406	U
1	1A	2430	A
1	1A	2439	A
1	1A	2602	A
1	1A	2611	U
1	1A	2689	U
1	1A	2756	U
1	1A	2893	G
1	2A	9	U
1	2A	195	A
1	2A	196	A
1	2A	249	C
1	2A	266	G
1	2A	271(M)	G
1	2A	277	C
1	2A	752	A
1	2A	764	A
1	2A	827	U
1	2A	840	C
1	2A	856	C
1	2A	900	A
1	2A	1047	G
1	2A	1053	C
1	2A	1057	A
1	2A	1065	U
1	2A	1067	A
1	2A	1073	A
1	2A	1076	C
1	2A	1210	A

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Mol	Chain	Res	Type
1	2A	1379	A
1	2A	1420	U
1	2A	1442	G
1	2A	1491	G
1	2A	1992	G
1	2A	2126	A
1	2A	2171	A
1	2A	2172	U
1	2A	2321	G
1	2A	2406	U
1	2A	2439	A
1	2A	2601	C
1	2A	2602	A
1	2A	2689	U
1	2A	2756	U

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

50 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
43	0TD	2l	92	43	8,9,10	4.52	1 (12%)	6,11,13	5.95	3 (50%)
32	5MC	2a	1407	32	19,22,23	1.69	2 (10%)	26,32,35	1.18	3 (11%)
32	5MC	1a	1407	32	19,22,23	1.59	3 (15%)	26,32,35	1.11	3 (11%)
43	0TD	1l	92	43	8,9,10	4.50	1 (12%)	6,11,13	8.31	3 (50%)
1	PSU	1A	1911	1	18,21,22	1.35	2 (11%)	21,30,33	2.11	5 (23%)
32	4OC	1a	1402	32	20,23,24	0.74	0	25,32,35	0.92	1 (4%)
1	5MU	1A	1915	54,1	19,22,23	1.42	5 (26%)	27,32,35	2.35	9 (33%)
32	M2G	1a	966	32	24,27,28	1.31	4 (16%)	33,40,43	1.86	5 (15%)
32	2MG	1a	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.30	9 (27%)
1	OMG	1A	2251	54,1	23,26,27	1.27	3 (13%)	32,38,41	1.99	6 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	MA6	2A	2058	56,1	23,26,27	0.46	0	33,38,41	2.11	9 (27%)
32	G7M	1a	527	54,32	23,26,27	1.47	3 (13%)	34,39,42	1.66	5 (14%)
32	MA6	1a	1519	32	23,26,27	0.41	0	33,38,41	2.01	9 (27%)
32	4OC	2a	1402	32	20,23,24	0.77	0	25,32,35	1.09	2 (8%)
32	MA6	2a	1518	32	23,26,27	0.40	0	33,38,41	2.00	9 (27%)
32	2MG	2a	1207	32	23,26,27	1.24	4 (17%)	33,38,41	2.19	9 (27%)
32	PSU	2a	516	54,32	18,21,22	1.35	2 (11%)	21,30,33	2.10	5 (23%)
32	MA6	1a	1518	32	23,26,27	0.39	0	33,38,41	1.93	10 (30%)
1	OMC	1A	1920	1	19,22,23	0.81	0	25,31,34	0.92	1 (4%)
32	PSU	1a	516	54,32	18,21,22	1.41	2 (11%)	21,30,33	1.90	3 (14%)
32	UR3	2a	1498	54,32	19,22,23	1.02	2 (10%)	26,32,35	1.67	3 (11%)
1	MA6	1A	2058	54,1	23,26,27	0.39	0	33,38,41	2.13	9 (27%)
1	PSU	1A	1917	1	18,21,22	1.35	2 (11%)	21,30,33	2.02	5 (23%)
1	PSU	2A	1917	1	18,21,22	1.34	2 (11%)	21,30,33	2.11	4 (19%)
32	5MC	1a	1400	32	19,22,23	1.91	3 (15%)	26,32,35	1.22	3 (11%)
32	5MC	1a	1404	32	19,22,23	1.67	3 (15%)	26,32,35	1.14	2 (7%)
1	5MU	2A	1915	1	19,22,23	1.45	4 (21%)	27,32,35	2.20	9 (33%)
1	5MC	1A	1962	54,1	19,22,23	1.60	3 (15%)	26,32,35	1.09	2 (7%)
1	PSU	2A	2605	1	18,21,22	1.31	3 (16%)	21,30,33	2.11	4 (19%)
1	2MA	2A	2503	54,1	22,25,26	1.44	4 (18%)	32,37,40	2.39	9 (28%)
32	5MC	2a	1400	32	19,22,23	1.72	3 (15%)	26,32,35	1.21	2 (7%)
32	5MC	2a	1404	32	19,22,23	1.63	3 (15%)	26,32,35	1.14	2 (7%)
1	OMC	2A	1920	1	19,22,23	0.81	0	25,31,34	1.04	1 (4%)
32	5MC	2a	967	32	19,22,23	1.87	3 (15%)	26,32,35	1.08	2 (7%)
1	5MC	2A	1942	1	19,22,23	1.78	3 (15%)	26,32,35	1.20	2 (7%)
32	5MC	1a	967	32	19,22,23	1.61	3 (15%)	26,32,35	1.06	2 (7%)
1	2MA	1A	2503	54,1	22,25,26	1.56	5 (22%)	32,37,40	2.22	7 (21%)
1	PSU	1A	2605	54,1	18,21,22	1.34	3 (16%)	21,30,33	2.03	4 (19%)
32	UR3	1a	1498	32	19,22,23	0.99	0	26,32,35	1.92	5 (19%)
32	MA6	2a	1519	32	23,26,27	0.46	0	33,38,41	2.15	10 (30%)
1	5MC	2A	1962	54,1	19,22,23	1.74	3 (15%)	26,32,35	1.16	2 (7%)
1	5MC	1A	1942	54,1	19,22,23	1.54	3 (15%)	26,32,35	1.07	1 (3%)
1	PSU	2A	1911	1	18,21,22	1.37	2 (11%)	21,30,33	2.10	5 (23%)
1	OMG	2A	2251	54,1	23,26,27	1.21	3 (13%)	32,38,41	1.93	5 (15%)
1	OMU	2A	2552	54,1	19,22,23	1.27	2 (10%)	25,31,34	1.95	6 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	5MU	2A	1939	1	19,22,23	1.40	4 (21%)	27,32,35	2.43	8 (29%)
32	M2G	2a	966	54,32	24,27,28	1.31	3 (12%)	33,40,43	1.87	5 (15%)
32	G7M	2a	527	54,32	23,26,27	1.52	3 (13%)	34,39,42	1.71	5 (14%)
1	5MU	1A	1939	54,1	19,22,23	1.52	6 (31%)	27,32,35	2.02	6 (22%)
1	OMU	1A	2552	54,1	19,22,23	1.28	4 (21%)	25,31,34	1.93	6 (24%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
43	0TD	2l	92	43	-	1/7/12/14	-
32	5MC	2a	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	1a	1407	32	-	0/7/25/26	0/2/2/2
43	0TD	1l	92	43	-	2/7/12/14	-
1	PSU	1A	1911	1	-	0/7/25/26	0/2/2/2
32	4OC	1a	1402	32	-	0/9/29/30	0/2/2/2
1	5MU	1A	1915	54,1	-	2/7/25/26	0/2/2/2
32	M2G	1a	966	32	-	0/11/29/30	0/3/3/3
32	2MG	1a	1207	32	-	1/9/27/28	0/3/3/3
1	OMG	1A	2251	54,1	-	1/9/27/28	0/3/3/3
1	MA6	2A	2058	56,1	-	0/11/29/30	0/3/3/3
32	G7M	1a	527	54,32	-	1/7/25/26	0/3/3/3
32	MA6	1a	1519	32	-	2/11/29/30	0/3/3/3
32	4OC	2a	1402	32	-	1/9/29/30	0/2/2/2
32	MA6	2a	1518	32	-	0/11/29/30	0/3/3/3
32	2MG	2a	1207	32	-	0/9/27/28	0/3/3/3
32	PSU	2a	516	54,32	-	0/7/25/26	0/2/2/2
32	MA6	1a	1518	32	-	0/11/29/30	0/3/3/3
1	OMC	1A	1920	1	-	1/9/27/28	0/2/2/2
32	PSU	1a	516	54,32	-	0/7/25/26	0/2/2/2
32	UR3	2a	1498	54,32	-	0/7/25/26	0/2/2/2
1	MA6	1A	2058	54,1	-	0/11/29/30	0/3/3/3
1	PSU	1A	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1917	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	1400	32	-	1/7/25/26	0/2/2/2
32	5MC	1a	1404	32	-	0/7/25/26	0/2/2/2
1	5MU	2A	1915	1	-	2/7/25/26	0/2/2/2
1	5MC	1A	1962	54,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	2605	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MA	2A	2503	54,1	-	0/7/25/26	0/3/3/3
32	5MC	2a	1400	32	-	4/7/25/26	0/2/2/2
32	5MC	2a	1404	32	-	0/7/25/26	0/2/2/2
1	OMC	2A	1920	1	-	1/9/27/28	0/2/2/2
32	5MC	2a	967	32	-	0/7/25/26	0/2/2/2
1	5MC	2A	1942	1	-	0/7/25/26	0/2/2/2
32	5MC	1a	967	32	-	0/7/25/26	0/2/2/2
1	2MA	1A	2503	54,1	-	1/7/25/26	0/3/3/3
1	PSU	1A	2605	54,1	-	0/7/25/26	0/2/2/2
32	UR3	1a	1498	32	-	0/7/25/26	0/2/2/2
32	MA6	2a	1519	32	-	1/11/29/30	0/3/3/3
1	5MC	2A	1962	54,1	-	0/7/25/26	0/2/2/2
1	5MC	1A	1942	54,1	-	0/7/25/26	0/2/2/2
1	PSU	2A	1911	1	-	0/7/25/26	0/2/2/2
1	OMG	2A	2251	54,1	-	0/9/27/28	0/3/3/3
1	OMU	2A	2552	54,1	-	0/9/27/28	0/2/2/2
1	5MU	2A	1939	1	-	0/7/25/26	0/2/2/2
32	M2G	2a	966	54,32	-	0/11/29/30	0/3/3/3
32	G7M	2a	527	54,32	-	2/7/25/26	0/3/3/3
1	5MU	1A	1939	54,1	-	0/7/25/26	0/2/2/2
1	OMU	1A	2552	54,1	-	0/9/27/28	0/2/2/2

All (117) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	2l	92	0TD	CB-SB	-12.40	1.69	1.82
43	1l	92	0TD	CB-SB	-12.30	1.69	1.82
32	1a	1400	5MC	C5-C4	7.09	1.49	1.44
32	2a	967	5MC	C5-C4	7.01	1.49	1.44
1	2A	1942	5MC	C5-C4	6.63	1.49	1.44
1	2A	1962	5MC	C5-C4	6.36	1.48	1.44
32	2a	1400	5MC	C5-C4	6.27	1.48	1.44
32	2a	1407	5MC	C5-C4	6.12	1.48	1.44
32	1a	1404	5MC	C5-C4	6.10	1.48	1.44
32	2a	1404	5MC	C5-C4	5.90	1.48	1.44
1	1A	1962	5MC	C5-C4	5.78	1.48	1.44
32	1a	1407	5MC	C5-C4	5.76	1.48	1.44
32	1a	967	5MC	C5-C4	5.63	1.48	1.44
1	1A	1942	5MC	C5-C4	5.37	1.48	1.44
1	1A	2503	2MA	C5-C4	4.70	1.47	1.39
32	2a	527	G7M	C5-N7	-4.66	1.33	1.39
32	1a	527	G7M	C5-N7	-4.43	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	2A	2503	2MA	C5-C4	4.23	1.46	1.39
32	1a	516	PSU	C6-C5	3.91	1.39	1.35
1	1A	1917	PSU	C6-C5	3.56	1.39	1.35
32	2a	516	PSU	C6-C5	3.49	1.39	1.35
32	2a	966	M2G	C5-C4	3.42	1.48	1.38
1	2A	1911	PSU	C6-C5	3.42	1.39	1.35
32	2a	527	G7M	C5-C4	3.26	1.46	1.38
1	1A	2605	PSU	C4-N3	-3.25	1.32	1.38
32	2a	1207	2MG	C5-C4	3.24	1.47	1.38
32	1a	527	G7M	C5-C4	3.21	1.46	1.38
32	1a	966	M2G	C5-C4	3.19	1.47	1.38
1	2A	2251	OMG	C5-C4	3.18	1.47	1.38
1	1A	2251	OMG	C5-C4	3.16	1.47	1.38
1	1A	1911	PSU	C6-C5	3.09	1.38	1.35
1	1A	1915	5MU	C2-N1	3.07	1.43	1.38
1	2A	1917	PSU	C6-C5	3.05	1.38	1.35
32	1a	1400	5MC	C6-C5	3.05	1.39	1.34
1	1A	1939	5MU	C6-C5	3.03	1.39	1.34
1	2A	1915	5MU	C6-C5	3.02	1.39	1.34
32	1a	1207	2MG	C5-C4	2.99	1.46	1.38
1	2A	1962	5MC	C6-C5	2.99	1.39	1.34
1	2A	1915	5MU	C2-N1	2.96	1.43	1.38
1	2A	1939	5MU	C4-C5	2.91	1.49	1.44
32	2a	1407	5MC	C6-C5	2.90	1.39	1.34
32	1a	967	5MC	C6-C5	2.89	1.39	1.34
1	1A	1939	5MU	C4-N3	-2.87	1.33	1.38
32	2a	967	5MC	C6-C5	2.87	1.39	1.34
1	2A	1939	5MU	C6-C5	2.84	1.39	1.34
32	1a	1404	5MC	C6-C5	2.84	1.39	1.34
1	1A	1942	5MC	C6-C5	2.79	1.39	1.34
32	2a	1400	5MC	C6-C5	2.78	1.39	1.34
32	1a	966	M2G	C2-N2	2.78	1.40	1.35
1	2A	1942	5MC	C6-C5	2.76	1.39	1.34
32	1a	966	M2G	C6-N1	-2.76	1.33	1.38
32	2a	1404	5MC	C6-C5	2.74	1.39	1.34
1	1A	2503	2MA	C5-N7	-2.73	1.34	1.39
1	2A	2605	PSU	C6-C5	2.70	1.38	1.35
1	2A	2605	PSU	C4-N3	-2.69	1.33	1.38
32	2a	966	M2G	C2-N2	2.68	1.40	1.35
1	1A	2251	OMG	C6-N1	-2.67	1.33	1.38
32	1a	1407	5MC	C6-C5	2.65	1.38	1.34
1	2A	2552	OMU	C4-N3	-2.64	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	2552	OMU	C4-N3	-2.61	1.34	1.38
1	1A	1917	PSU	C4-N3	-2.61	1.34	1.38
1	1A	1911	PSU	C4-N3	-2.60	1.34	1.38
1	2A	1911	PSU	C4-N3	-2.59	1.34	1.38
1	1A	1939	5MU	C4-C5	2.59	1.49	1.44
1	2A	1939	5MU	C4-N3	-2.56	1.34	1.38
1	2A	1915	5MU	C4-N3	-2.54	1.34	1.38
32	1a	516	PSU	C4-N3	-2.54	1.34	1.38
1	2A	2503	2MA	C5-C6	2.54	1.48	1.41
1	2A	1917	PSU	C4-N3	-2.53	1.34	1.38
32	1a	1207	2MG	C6-N1	-2.52	1.34	1.38
1	1A	1915	5MU	C4-N3	-2.51	1.34	1.38
32	2a	516	PSU	C4-N3	-2.47	1.34	1.38
1	2A	2251	OMG	C6-N1	-2.47	1.34	1.38
32	2a	527	G7M	C6-N1	-2.47	1.34	1.38
1	1A	1915	5MU	C6-C5	2.46	1.38	1.34
1	1A	1962	5MC	C6-N1	-2.44	1.33	1.38
32	2a	966	M2G	C6-N1	-2.43	1.34	1.38
1	1A	1939	5MU	C2-N1	2.41	1.42	1.38
32	2a	1207	2MG	C6-N1	-2.40	1.34	1.38
1	1A	2503	2MA	C5-C6	2.40	1.47	1.41
32	1a	527	G7M	C6-N1	-2.38	1.34	1.38
32	1a	1400	5MC	C6-N1	-2.35	1.34	1.38
32	2a	1400	5MC	C6-N1	-2.34	1.34	1.38
1	1A	1942	5MC	C6-N1	-2.32	1.34	1.38
1	2A	1915	5MU	C4-C5	2.31	1.48	1.44
1	1A	1915	5MU	C4-C5	2.30	1.48	1.44
1	2A	2503	2MA	C8-N7	2.30	1.36	1.31
1	2A	2552	OMU	C5-C4	2.29	1.48	1.43
1	1A	2605	PSU	C2-N3	-2.25	1.33	1.37
1	1A	2552	OMU	C5-C4	2.25	1.48	1.43
32	2a	1498	UR3	C6-C5	2.25	1.40	1.35
1	2A	1939	5MU	C6-N1	-2.24	1.34	1.38
1	1A	2503	2MA	C8-N7	2.24	1.36	1.31
32	2a	1404	5MC	C6-N1	-2.21	1.34	1.38
1	1A	2552	OMU	C2-N3	-2.21	1.34	1.38
32	2a	1498	UR3	C2-N1	2.20	1.41	1.38
32	2a	1207	2MG	C2-N3	2.20	1.36	1.32
1	2A	1942	5MC	C6-N1	-2.18	1.34	1.38
1	1A	1939	5MU	C6-N1	-2.18	1.34	1.38
32	1a	1404	5MC	C6-N1	-2.17	1.34	1.38
32	1a	1407	5MC	C6-N1	-2.17	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1A	1939	5MU	C2-N3	-2.16	1.34	1.38
1	2A	2605	PSU	C2-N3	-2.15	1.33	1.37
1	2A	2251	OMG	C5-N7	-2.15	1.34	1.39
1	1A	2251	OMG	C5-N7	-2.15	1.34	1.39
32	1a	1207	2MG	C2-N3	2.13	1.36	1.32
1	1A	1962	5MC	C6-C5	2.13	1.38	1.34
1	2A	2503	2MA	C5-N7	-2.11	1.35	1.39
1	1A	2503	2MA	C4-N9	-2.10	1.33	1.37
1	1A	2605	PSU	C6-C5	2.10	1.37	1.35
32	2a	967	5MC	C6-N1	-2.08	1.34	1.38
32	1a	967	5MC	C6-N1	-2.07	1.34	1.38
32	2a	1207	2MG	C5-N7	-2.06	1.34	1.39
1	1A	1915	5MU	C6-N1	-2.05	1.34	1.38
32	1a	966	M2G	C5-N7	-2.05	1.35	1.39
1	1A	2552	OMU	C2-N1	2.02	1.41	1.38
1	2A	1962	5MC	C6-N1	-2.01	1.34	1.38

All (245) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	1l	92	0TD	CSB-SB-CB	-19.88	66.63	102.36
43	2l	92	0TD	CSB-SB-CB	-13.96	77.28	102.36
1	2A	2503	2MA	C5-C4-N3	-8.17	118.58	127.18
1	1A	2503	2MA	C5-C4-N3	-7.86	118.90	127.18
32	1a	1207	2MG	C2-N3-C4	7.50	121.38	112.00
32	1a	1498	UR3	C4-N3-C2	-7.43	118.60	124.58
32	2a	1207	2MG	C2-N3-C4	6.88	120.61	112.00
32	2a	1498	UR3	C4-N3-C2	-6.67	119.21	124.58
1	2A	1911	PSU	N1-C2-N3	6.59	122.12	115.17
1	2A	1917	PSU	N1-C2-N3	6.52	122.04	115.17
1	1A	1911	PSU	N1-C2-N3	6.50	122.03	115.17
1	2A	2503	2MA	N3-C4-N9	6.47	135.20	126.99
32	2a	516	PSU	N1-C2-N3	6.41	121.93	115.17
32	2a	966	M2G	C5-C4-N3	-6.30	118.36	128.39
32	2a	1207	2MG	C5-C4-N3	-6.26	118.43	128.39
1	1A	2251	OMG	C5-C4-N3	-6.24	118.46	128.39
1	2A	2605	PSU	N1-C2-N3	6.19	121.70	115.17
32	1a	966	M2G	C5-C4-N3	-6.17	118.58	128.39
32	1a	1207	2MG	C5-C4-N3	-6.15	118.60	128.39
1	1A	1917	PSU	N1-C2-N3	6.14	121.65	115.17
1	2A	1939	5MU	C4-N3-C2	-6.06	119.40	127.34
1	1A	2605	PSU	N1-C2-N3	6.05	121.55	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1939	5MU	N3-C2-N1	5.96	122.64	114.89
1	1A	2503	2MA	N3-C4-N9	5.93	134.51	126.99
32	1a	516	PSU	N1-C2-N3	5.92	121.41	115.17
1	2A	2251	OMG	C5-C4-N3	-5.87	119.05	128.39
32	1a	527	G7M	N9-C4-N3	5.45	136.85	125.95
32	2a	527	G7M	N9-C4-N3	5.45	136.85	125.95
1	1A	2058	MA6	N1-C2-N3	-5.27	120.61	128.58
1	2A	2552	OMU	N3-C2-N1	5.26	121.74	114.89
32	2a	527	G7M	C5-C4-N3	-5.21	118.31	128.15
1	2A	2058	MA6	N1-C2-N3	-5.18	120.74	128.58
1	1A	1915	5MU	C1'-N1-C2	5.05	126.65	117.59
1	1A	2251	OMG	C2-N3-C4	4.97	120.86	112.30
1	2A	1915	5MU	N3-C2-N1	4.95	121.34	114.89
32	1a	527	G7M	C5-C4-N3	-4.92	118.85	128.15
1	1A	1939	5MU	C4-N3-C2	-4.90	120.91	127.34
1	1A	1939	5MU	N3-C2-N1	4.89	121.26	114.89
32	1a	1519	MA6	N1-C2-N3	-4.88	121.20	128.58
1	1A	2552	OMU	N3-C2-N1	4.87	121.23	114.89
1	2A	2251	OMG	C2-N3-C4	4.84	120.64	112.30
32	2a	1519	MA6	C5-C4-N3	-4.84	120.05	126.72
32	2a	1518	MA6	N1-C2-N3	-4.73	121.42	128.58
1	2A	2552	OMU	C4-N3-C2	-4.73	120.74	126.61
32	2a	1519	MA6	N1-C2-N3	-4.64	121.56	128.58
32	2a	1207	2MG	N9-C4-N3	4.63	135.20	125.95
32	2a	527	G7M	C2-N3-C4	4.60	120.23	112.30
32	1a	1518	MA6	N1-C2-N3	-4.60	121.62	128.58
1	1A	1915	5MU	C1'-N1-C6	-4.60	113.58	121.15
1	2A	2605	PSU	C4-N3-C2	-4.59	120.05	126.37
32	1a	966	M2G	N9-C4-N3	4.57	135.09	125.95
1	2A	1939	5MU	C5-C4-N3	4.55	119.28	115.32
1	1A	2605	PSU	C4-N3-C2	-4.52	120.14	126.37
32	1a	966	M2G	C2-N3-C4	4.47	120.78	112.51
32	2a	1518	MA6	C5-C4-N3	-4.47	120.56	126.72
1	1A	1915	5MU	C4-N3-C2	-4.44	121.51	127.34
32	2a	966	M2G	C2-N3-C4	4.44	120.73	112.51
1	1A	1915	5MU	N3-C2-N1	4.44	120.67	114.89
32	2a	966	M2G	N9-C4-N3	4.41	134.77	125.95
32	2a	1519	MA6	C4-C5-N7	-4.35	105.61	110.58
1	2A	1915	5MU	C4-N3-C2	-4.34	121.65	127.34
1	1A	1915	5MU	C5-C4-N3	4.31	119.07	115.32
32	1a	527	G7M	C2-N3-C4	4.30	119.70	112.30
32	1a	1519	MA6	C5-C4-N3	-4.30	120.80	126.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2552	OMU	C4-N3-C2	-4.29	121.28	126.61
1	1A	1939	5MU	C5-C4-N3	4.29	119.05	115.32
32	1a	1207	2MG	N9-C4-N3	4.25	134.46	125.95
1	2A	1911	PSU	C4-N3-C2	-4.25	120.52	126.37
1	2A	1917	PSU	C4-N3-C2	-4.24	120.53	126.37
1	1A	1911	PSU	C4-N3-C2	-4.23	120.54	126.37
1	2A	1915	5MU	C1'-N1-C2	4.22	125.17	117.59
32	2a	516	PSU	C4-N3-C2	-4.21	120.57	126.37
1	1A	2251	OMG	N9-C4-N3	4.21	134.37	125.95
1	2A	1939	5MU	O2-C2-N1	-4.20	117.33	122.80
1	2A	1917	PSU	O2-C2-N1	-4.19	118.47	122.79
1	1A	1917	PSU	C4-N3-C2	-4.18	120.61	126.37
32	2a	1400	5MC	C5-C6-N1	-4.18	118.77	123.31
1	2A	2058	MA6	C2-N1-C6	4.18	122.03	111.83
1	1A	1911	PSU	O2-C2-N1	-4.15	118.51	122.79
1	2A	1939	5MU	C5-C6-N1	-4.13	118.83	123.31
1	1A	2058	MA6	C5-N7-C8	4.10	109.89	103.45
32	1a	1518	MA6	C2-N1-C6	4.10	121.83	111.83
32	2a	1519	MA6	C5-N7-C8	4.09	109.87	103.45
1	1A	2058	MA6	C5-C4-N3	-4.09	121.09	126.72
1	2A	2251	OMG	N9-C4-N3	4.08	134.10	125.95
1	1A	1915	5MU	O4-C4-C5	-4.07	120.27	124.92
32	1a	1519	MA6	C2-N1-C6	4.04	121.70	111.83
32	2a	1518	MA6	C2-N1-C6	3.99	121.58	111.83
1	1A	1939	5MU	C5-C6-N1	-3.97	119.00	123.31
1	1A	2058	MA6	N9-C8-N7	-3.95	108.33	113.94
1	2A	1939	5MU	O4-C4-C5	-3.94	120.41	124.92
1	2A	2058	MA6	C4-C5-N7	-3.90	106.13	110.58
1	2A	1915	5MU	O4-C4-C5	-3.88	120.47	124.92
1	2A	2058	MA6	C5-N7-C8	3.86	109.51	103.45
32	2a	1519	MA6	C2-N1-C6	3.84	121.21	111.83
1	1A	2058	MA6	C2-N1-C6	3.80	121.10	111.83
32	1a	1400	5MC	C5-C6-N1	-3.79	119.20	123.31
32	1a	516	PSU	C4-N3-C2	-3.78	121.16	126.37
32	1a	1518	MA6	C5-N7-C8	3.76	109.36	103.45
32	1a	1518	MA6	C5-C4-N3	-3.76	121.54	126.72
1	2A	2503	2MA	C4-C5-N7	-3.76	106.28	110.58
32	1a	1519	MA6	C4-C5-N7	-3.75	106.29	110.58
1	2A	1915	5MU	C5-C4-N3	3.74	118.58	115.32
32	2a	1518	MA6	C4-C5-N7	-3.70	106.36	110.58
1	2A	2552	OMU	O2-C2-N1	-3.68	118.01	122.80
32	2a	1518	MA6	C5-N7-C8	3.68	109.23	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1A	2058	MA6	C2-N3-C4	3.67	120.81	111.83
1	2A	1942	5MC	C5-C6-N1	-3.64	119.36	123.31
1	1A	2503	2MA	C4-C5-N7	-3.64	106.42	110.58
32	1a	1207	2MG	C6-C5-N7	3.64	136.91	130.29
32	1a	1519	MA6	C5-N7-C8	3.63	109.15	103.45
32	2a	516	PSU	O2-C2-N1	-3.62	119.06	122.79
1	1A	1942	5MC	C5-C6-N1	-3.59	119.42	123.31
1	1A	2251	OMG	C6-C5-N7	3.56	136.76	130.29
32	1a	1518	MA6	N9-C8-N7	-3.55	108.90	113.94
32	1a	1404	5MC	C5-C6-N1	-3.53	119.48	123.31
1	2A	1911	PSU	O2-C2-N1	-3.53	119.15	122.79
1	1A	2058	MA6	C4-C5-N7	-3.51	106.57	110.58
1	2A	2605	PSU	O2-C2-N1	-3.50	119.18	122.79
1	2A	2251	OMG	C6-C5-N7	3.49	136.64	130.29
32	2a	1519	MA6	N9-C8-N7	-3.48	108.99	113.94
1	2A	2058	MA6	C5-C4-N3	-3.48	121.92	126.72
32	2a	1519	MA6	C2-N3-C4	3.47	120.31	111.83
32	1a	1518	MA6	C4-C5-N7	-3.46	106.62	110.58
1	2A	1915	5MU	C1'-N1-C6	-3.37	115.60	121.15
32	1a	1519	MA6	C2-N3-C4	3.37	120.06	111.83
32	2a	1518	MA6	C2-N3-C4	3.36	120.03	111.83
32	1a	1407	5MC	C5-C6-N1	-3.34	119.69	123.31
32	1a	1498	UR3	C5-C4-N3	3.33	119.43	115.04
1	2A	2058	MA6	N9-C8-N7	-3.32	109.22	113.94
1	1A	1917	PSU	O2-C2-N1	-3.30	119.39	122.79
1	2A	2058	MA6	C2-N3-C4	3.26	119.80	111.83
43	1l	92	0TD	OD2-CG-CB	3.26	120.18	113.15
1	2A	2503	2MA	C4-N9-C8	3.25	109.16	105.74
1	1A	1939	5MU	O4-C4-C5	-3.25	121.20	124.92
32	2a	966	M2G	C6-C5-N7	3.23	136.17	130.29
32	2a	967	5MC	C5-C6-N1	-3.22	119.81	123.31
1	2A	1962	5MC	C5-C6-N1	-3.22	119.81	123.31
43	2l	92	0TD	OD2-CG-CB	3.22	120.11	113.15
32	1a	966	M2G	C6-C5-N7	3.21	136.14	130.29
1	1A	2251	OMG	C4-C5-N7	-3.17	105.65	110.67
32	2a	1404	5MC	C5-C4-N3	-3.14	118.53	121.75
32	2a	1518	MA6	N9-C8-N7	-3.14	109.48	113.94
1	1A	2503	2MA	C2-N1-C6	3.11	122.88	118.10
32	2a	1498	UR3	C5-C4-N3	3.10	119.12	115.04
32	1a	1519	MA6	N9-C8-N7	-3.09	109.56	113.94
32	1a	967	5MC	C5-C6-N1	-3.07	119.97	123.31
1	1A	2552	OMU	C2'-C1'-N1	-3.07	108.41	114.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1404	5MC	C5-C6-N1	-3.06	119.99	123.31
1	1A	1962	5MC	C5-C6-N1	-3.06	119.99	123.31
1	1A	2605	PSU	O2-C2-N1	-3.02	119.67	122.79
1	2A	1962	5MC	C5-C4-N3	-3.02	118.66	121.75
32	1a	1518	MA6	C2-N3-C4	3.01	119.18	111.83
32	2a	1407	5MC	C5-C4-N3	-3.00	118.67	121.75
32	1a	1404	5MC	C5-C4-N3	-2.99	118.69	121.75
32	2a	1407	5MC	C5-C6-N1	-2.98	120.07	123.31
32	2a	1207	2MG	C6-C5-N7	2.98	135.71	130.29
1	1A	2552	OMU	O4-C4-C5	-2.96	120.06	125.16
1	1A	2503	2MA	N6-C6-N1	2.94	120.99	117.03
1	1A	2552	OMU	C5-C4-N3	2.92	118.89	114.80
1	1A	2058	MA6	N3-C4-N9	2.91	132.12	127.17
1	2A	2552	OMU	C5-C4-N3	2.87	118.83	114.80
32	2a	966	M2G	C4-C5-N7	-2.86	106.14	110.67
1	2A	2503	2MA	C5-N7-C8	2.84	107.92	103.45
32	1a	1207	2MG	C4-C5-N7	-2.82	106.20	110.67
32	1a	1400	5MC	C5-C4-N3	-2.81	118.87	121.75
1	2A	2503	2MA	C2-N1-C6	2.79	122.39	118.10
1	2A	2552	OMU	O4-C4-C5	-2.75	120.41	125.16
1	2A	2503	2MA	N6-C6-N1	2.75	120.74	117.03
32	1a	1207	2MG	N1-C2-N2	2.75	119.36	116.56
1	2A	2251	OMG	C4-C5-N7	-2.74	106.33	110.67
32	2a	1519	MA6	C4-C5-C6	2.73	118.74	115.91
32	2a	967	5MC	C5-C4-N3	-2.73	118.96	121.75
32	2a	1518	MA6	N3-C4-N9	2.69	131.75	127.17
1	2A	1920	OMC	O2-C2-N3	-2.69	118.09	122.33
32	1a	516	PSU	O2-C2-N1	-2.67	120.04	122.79
32	2a	1519	MA6	N3-C4-N9	2.63	131.65	127.17
1	1A	1915	5MU	C5M-C5-C4	2.63	121.59	118.78
32	1a	1402	4OC	C6-C5-C4	2.62	120.16	117.00
1	2A	2552	OMU	C2'-C1'-N1	-2.59	109.33	114.24
1	1A	2605	PSU	C5-C6-N1	-2.57	118.57	122.14
32	2a	1407	5MC	O2-C2-N3	-2.57	118.27	122.33
32	1a	1498	UR3	C1'-N1-C2	2.56	121.24	117.04
32	1a	1498	UR3	C3U-N3-C2	2.56	121.80	117.33
32	1a	967	5MC	C5-C4-N3	-2.55	119.14	121.75
1	1A	2503	2MA	C5-N7-C8	2.54	107.44	103.45
32	2a	1207	2MG	C4-C5-N7	-2.53	106.66	110.67
1	1A	2058	MA6	C4-N9-C8	2.52	108.39	105.74
1	2A	1942	5MC	C5-C4-N3	-2.52	119.17	121.75
32	1a	966	M2G	C4-C5-N7	-2.50	106.70	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	2a	1518	MA6	C4-C5-C6	2.50	118.49	115.91
1	2A	2503	2MA	N9-C8-N7	-2.48	110.42	113.94
1	2A	2605	PSU	C5-C6-N1	-2.46	118.72	122.14
32	2a	516	PSU	O4'-C1'-C2'	2.46	108.55	105.15
32	1a	1407	5MC	C5-C4-N3	-2.44	119.25	121.75
32	1a	1519	MA6	N3-C4-N9	2.44	131.32	127.17
32	1a	1498	UR3	C6-N1-C2	-2.43	119.81	121.80
1	2A	2058	MA6	N1-C6-N6	-2.42	113.90	116.86
32	1a	1518	MA6	N3-C4-N9	2.42	131.28	127.17
32	2a	527	G7M	O6-C6-C5	-2.40	122.65	128.01
1	2A	2503	2MA	C6-C5-N7	2.36	136.65	132.09
1	1A	1920	OMC	O2-C2-N3	-2.35	118.62	122.33
1	2A	1915	5MU	O2-C2-N3	-2.33	117.18	121.49
32	2a	1402	4OC	C6-C5-C4	2.33	119.81	117.00
1	1A	2503	2MA	C4-N9-C8	2.30	108.16	105.74
1	2A	1915	5MU	C5-C6-N1	-2.30	120.81	123.31
32	1a	527	G7M	O6-C6-C5	-2.30	122.87	128.01
1	1A	1915	5MU	O2-C2-N3	-2.30	117.25	121.49
43	1l	92	0TD	OD1-CG-CB	-2.29	117.64	122.44
32	2a	1519	MA6	C5-C4-N9	2.28	108.29	105.81
32	2a	1400	5MC	C5-C4-N3	-2.27	119.42	121.75
32	2a	516	PSU	C5-C6-N1	-2.27	118.99	122.14
1	1A	1911	PSU	C5-C6-N1	-2.26	119.00	122.14
43	2l	92	0TD	OD1-CG-CB	-2.26	117.71	122.44
1	1A	1917	PSU	C5-C6-N1	-2.25	119.01	122.14
1	1A	1962	5MC	C1'-N1-C6	-2.25	117.44	121.15
32	2a	1498	UR3	C3U-N3-C4	2.25	120.99	117.87
32	2a	527	G7M	C5-C6-N1	2.23	116.46	111.84
32	2a	1207	2MG	O6-C6-C5	-2.22	120.67	126.53
1	1A	1939	5MU	O2-C2-N1	-2.21	119.93	122.80
32	1a	1519	MA6	C4-C5-C6	2.19	118.18	115.91
1	2A	2058	MA6	C6-C5-N7	2.19	136.93	133.43
1	2A	1939	5MU	C5M-C5-C6	-2.18	119.90	122.85
1	1A	2251	OMG	C8-N7-C5	2.18	108.14	104.26
1	2A	1939	5MU	C5M-C5-C4	2.15	121.08	118.78
1	1A	1911	PSU	O4'-C1'-C2'	2.14	108.11	105.15
32	1a	1400	5MC	O2-C2-N3	-2.13	118.97	122.33
32	1a	527	G7M	C5-C6-N1	2.13	116.25	111.84
1	2A	1915	5MU	C6-N1-C2	-2.13	119.18	121.30
1	1A	2552	OMU	O2-C2-N1	-2.11	120.05	122.80
32	2a	1207	2MG	CM2-N2-C2	-2.10	119.13	123.65
32	1a	1518	MA6	C4-N9-C8	2.09	107.94	105.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	2A	1911	PSU	C5-C6-N1	-2.08	119.25	122.14
1	1A	1915	5MU	C5-C6-N1	-2.08	121.05	123.31
32	2a	1402	4OC	CM2-O2'-C2'	2.07	119.80	114.47
32	2a	1207	2MG	C2-N1-C6	-2.05	122.07	124.55
32	2a	1207	2MG	N2-C2-N3	-2.03	117.92	120.51
32	1a	1207	2MG	O6-C6-C5	-2.03	121.18	126.53
32	1a	1207	2MG	C2-N1-C6	-2.02	122.10	124.55
1	2A	1911	PSU	O4'-C1'-C2'	2.02	107.95	105.15
32	1a	1518	MA6	C4-C5-C6	2.02	118.00	115.91
32	1a	1207	2MG	C5-C6-N1	2.02	118.39	113.25
1	2A	1917	PSU	C5-C6-N1	-2.02	119.34	122.14
1	1A	1917	PSU	O4'-C1'-C2'	2.02	107.94	105.15
32	1a	1407	5MC	CM5-C5-C6	-2.00	120.14	122.85

There are no chirality outliers.

All (24) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	1A	1915	5MU	O4'-C1'-N1-C2
1	1A	1915	5MU	O4'-C1'-N1-C6
1	1A	2251	OMG	C1'-C2'-O2'-CM2
43	1l	92	0TD	CA-CB-SB-CSB
43	1l	92	0TD	CG-CB-SB-CSB
1	2A	1915	5MU	O4'-C1'-N1-C2
1	2A	1915	5MU	O4'-C1'-N1-C6
32	1a	1519	MA6	O4'-C4'-C5'-O5'
32	2a	527	G7M	C3'-C4'-C5'-O5'
32	1a	1519	MA6	C3'-C4'-C5'-O5'
32	2a	527	G7M	O4'-C4'-C5'-O5'
32	2a	1400	5MC	C2'-C1'-N1-C6
32	1a	1207	2MG	O4'-C4'-C5'-O5'
32	1a	527	G7M	C3'-C4'-C5'-O5'
32	2a	1400	5MC	O4'-C1'-N1-C6
32	2a	1402	4OC	O4'-C4'-C5'-O5'
1	1A	2503	2MA	C4'-C5'-O5'-P
32	2a	1519	MA6	O4'-C4'-C5'-O5'
32	1a	1400	5MC	O4'-C4'-C5'-O5'
1	1A	1920	OMC	C2'-C1'-N1-C2
43	2l	92	0TD	CG-CB-SB-CSB
32	2a	1400	5MC	O4'-C1'-N1-C2
1	2A	1920	OMC	C2'-C1'-N1-C2
32	2a	1400	5MC	C2'-C1'-N1-C2

There are no ring outliers.

26 monomers are involved in 38 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
43	2l	92	0TD	1	0
32	1a	1402	4OC	1	0
32	1a	1207	2MG	1	0
1	1A	2251	OMG	1	0
1	2A	2058	MA6	5	0
32	1a	1519	MA6	2	0
32	2a	1402	4OC	3	0
32	2a	1518	MA6	2	0
32	2a	1207	2MG	3	0
32	2a	516	PSU	1	0
32	1a	1518	MA6	1	0
1	1A	1920	OMC	1	0
32	1a	516	PSU	1	0
1	1A	2058	MA6	3	0
1	2A	1917	PSU	1	0
32	1a	1400	5MC	1	0
32	1a	1404	5MC	1	0
1	2A	1915	5MU	1	0
32	2a	1404	5MC	1	0
1	2A	1920	OMC	1	0
32	2a	1519	MA6	2	0
1	2A	2251	OMG	2	0
1	2A	1939	5MU	1	0
32	2a	966	M2G	1	0
1	1A	1939	5MU	2	0
1	1A	2552	OMU	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2442 ligands modelled in this entry, 2427 are monoatomic - leaving 15 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the

expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
57	MPD	1T	205	-	7,7,7	0.34	0	9,10,10	0.37	0
57	MPD	1a	1882	32	7,7,7	0.52	0	9,10,10	0.68	0
58	ARG	1B	230	54	10,11,11	0.77	1 (10%)	9,13,13	0.95	1 (11%)
57	MPD	1A	4028	-	7,7,7	0.34	0	9,10,10	0.21	0
55	HGR	1A	4026	-	39,39,39	2.39	9 (23%)	48,58,58	1.80	15 (31%)
60	SF4	1d	304	35	0,12,12	-	-	-	-	-
56	ERY	1A	4027	-	53,53,53	0.92	2 (3%)	82,82,82	1.52	12 (14%)
57	MPD	2A	3674	-	7,7,7	0.34	0	9,10,10	0.21	0
57	MPD	18	103	-	7,7,7	0.29	0	9,10,10	0.51	0
57	MPD	2A	3673	-	7,7,7	0.32	0	9,10,10	0.24	0
57	MPD	2A	3675	-	7,7,7	0.35	0	9,10,10	0.27	0
56	ERY	2A	3672	1	53,53,53	0.94	1 (1%)	82,82,82	1.60	15 (18%)
60	SF4	2d	501	35	0,12,12	-	-	-	-	-
58	ARG	1F	318	-	10,11,11	0.75	1 (10%)	9,13,13	0.90	1 (11%)
55	HGR	2A	3671	-	39,39,39	2.42	9 (23%)	48,58,58	1.61	11 (22%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
57	MPD	1T	205	-	-	0/5/5/5	-
57	MPD	1a	1882	32	-	4/5/5/5	-
58	ARG	1B	230	54	-	1/11/11/11	-
57	MPD	1A	4028	-	-	2/5/5/5	-
55	HGR	1A	4026	-	-	5/20/79/79	0/4/4/4
60	SF4	1d	304	35	-	-	0/6/5/5
56	ERY	1A	4027	-	-	5/72/107/107	0/3/3/3
57	MPD	2A	3674	-	-	5/5/5/5	-
57	MPD	18	103	-	-	2/5/5/5	-
57	MPD	2A	3673	-	-	0/5/5/5	-
57	MPD	2A	3675	-	-	3/5/5/5	-
56	ERY	2A	3672	1	-	14/72/107/107	0/3/3/3
60	SF4	2d	501	35	-	-	0/6/5/5
58	ARG	1F	318	-	-	4/11/11/11	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
55	HGR	2A	3671	-	-	6/20/79/79	0/4/4/4

All (23) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	2A	3671	HGR	C12-C14	9.16	1.55	1.33
55	1A	4026	HGR	C12-C14	8.89	1.54	1.33
55	1A	4026	HGR	C5-C4	-5.51	1.39	1.49
55	2A	3671	HGR	C5-C4	-5.45	1.39	1.49
56	2A	3672	ERY	O2-C1	5.31	1.46	1.34
55	1A	4026	HGR	C5-C6	-5.24	1.39	1.50
55	2A	3671	HGR	C5-C6	-5.22	1.39	1.50
55	2A	3671	HGR	C3-C2	-4.90	1.39	1.48
56	1A	4027	ERY	O2-C1	4.88	1.45	1.34
55	2A	3671	HGR	O4-C2	4.60	1.36	1.24
55	1A	4026	HGR	C3-C2	-4.59	1.39	1.48
55	1A	4026	HGR	O4-C2	4.24	1.35	1.24
55	1A	4026	HGR	O8-C23	2.77	1.45	1.41
55	1A	4026	HGR	C8-C7	-2.66	1.50	1.53
55	2A	3671	HGR	O1-C10	2.36	1.45	1.41
56	1A	4027	ERY	O2-C13	-2.36	1.42	1.46
55	2A	3671	HGR	O8-C23	2.30	1.45	1.41
58	1B	230	ARG	OXT-C	-2.28	1.23	1.30
55	2A	3671	HGR	O9-C23	2.15	1.44	1.41
58	1F	318	ARG	OXT-C	-2.07	1.24	1.30
55	1A	4026	HGR	C1-C2	-2.04	1.39	1.44
55	2A	3671	HGR	C1-C2	-2.03	1.39	1.44
55	1A	4026	HGR	O9-C23	2.02	1.44	1.41

All (55) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	1A	4027	ERY	O7-C5-C6	5.21	112.61	106.40
56	2A	3672	ERY	O5-C16-C15	-4.96	105.32	112.95
55	1A	4026	HGR	C4-C5-C6	4.41	121.76	112.35
55	2A	3671	HGR	C4-C5-C6	4.30	121.53	112.35
56	2A	3672	ERY	O5-C16-C17	4.20	109.95	103.86
56	2A	3672	ERY	O7-C5-C6	4.07	111.26	106.40
56	1A	4027	ERY	O5-C16-C17	4.01	109.67	103.86
56	1A	4027	ERY	C13-O2-C1	-3.96	111.28	118.20
55	1A	4026	HGR	O9-C22-C18	-3.64	98.33	106.03
55	2A	3671	HGR	O8-C18-C22	-3.47	98.68	106.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	2A	3672	ERY	O2-C1-C2	3.47	118.94	111.53
55	1A	4026	HGR	C23-O9-C22	-3.40	101.13	106.31
55	1A	4026	HGR	O1-C10-C9	-3.39	100.67	104.98
55	1A	4026	HGR	C4-C3-C2	-3.36	118.91	121.81
56	1A	4027	ERY	C6-C5-C4	-3.33	109.06	113.89
55	1A	4026	HGR	C12-C6-C1	-3.32	115.65	119.35
56	1A	4027	ERY	O2-C1-C2	3.30	118.58	111.53
55	2A	3671	HGR	C12-C6-C1	-3.25	115.73	119.35
55	2A	3671	HGR	O1-C10-C9	-3.22	100.89	104.98
56	2A	3672	ERY	C25-C24-N1	-3.14	106.78	115.59
55	1A	4026	HGR	O8-C18-C22	-3.14	99.40	106.03
56	2A	3672	ERY	C15-C16-C17	3.00	112.78	107.64
55	2A	3671	HGR	O4-C2-C3	-2.99	116.78	121.28
56	1A	4027	ERY	C25-C24-N1	-2.97	107.25	115.59
56	1A	4027	ERY	O5-C16-C15	-2.97	108.38	112.95
55	1A	4026	HGR	C10-C9-C8	-2.90	98.68	102.29
56	2A	3672	ERY	C13-O2-C1	-2.89	113.15	118.20
56	2A	3672	ERY	C6-C5-C4	-2.82	109.80	113.89
55	2A	3671	HGR	C10-C9-C8	-2.80	98.80	102.29
56	2A	3672	ERY	C20-O5-C16	2.80	123.21	117.51
55	1A	4026	HGR	C1-C2-C3	2.77	121.27	116.06
55	2A	3671	HGR	C4-C3-C2	-2.74	119.44	121.81
56	1A	4027	ERY	O7-C5-C4	-2.70	107.68	111.58
56	2A	3672	ERY	C16-C17-C18	2.66	114.99	111.12
55	1A	4026	HGR	O3-C3-C2	2.66	117.33	112.51
56	1A	4027	ERY	C20-O5-C16	2.63	122.86	117.51
55	1A	4026	HGR	O3-C10-C9	2.61	110.92	106.69
58	1B	230	ARG	OXT-C-O	-2.55	118.30	124.08
58	1F	318	ARG	OXT-C-O	-2.54	118.31	124.08
56	2A	3672	ERY	C23-C24-N1	2.46	118.04	110.94
55	2A	3671	HGR	C1-C2-C3	2.45	120.66	116.06
55	1A	4026	HGR	O4-C2-C3	-2.38	117.71	121.28
55	2A	3671	HGR	O9-C22-C18	-2.36	101.04	106.03
56	2A	3672	ERY	C14-O4-C18	2.31	120.15	113.82
56	2A	3672	ERY	C16-C15-C14	-2.29	111.12	114.99
56	2A	3672	ERY	O4-C18-C21	2.29	111.82	106.74
56	1A	4027	ERY	C2-C3-C4	-2.22	106.53	112.91
55	1A	4026	HGR	C9-C8-C7	-2.13	99.17	101.69
56	1A	4027	ERY	O2-C1-O1	-2.11	120.15	123.95
55	2A	3671	HGR	O3-C3-C2	2.10	116.32	112.51
55	2A	3671	HGR	O3-C10-C9	2.10	110.09	106.69
56	2A	3672	ERY	C27-C26-C25	-2.09	110.11	113.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	1A	4027	ERY	O3-C3-C4	2.05	110.65	108.23
55	1A	4026	HGR	C20-C17-N1	-2.04	106.86	110.62
55	1A	4026	HGR	C19-C17-N1	2.00	114.31	110.62

There are no chirality outliers.

All (51) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
56	1A	4027	ERY	C15-C16-O5-C20
56	1A	4027	ERY	C17-C16-O5-C20
56	2A	3672	ERY	C15-C16-O5-C20
56	2A	3672	ERY	C17-C16-O5-C20
56	2A	3672	ERY	C19-C16-O5-C20
57	18	103	MPD	C2-C3-C4-O4
57	18	103	MPD	C2-C3-C4-C5
57	2A	3674	MPD	C2-C3-C4-C5
56	2A	3672	ERY	C23-C24-N1-C29
56	1A	4027	ERY	C19-C16-O5-C20
58	1F	318	ARG	OXT-C-CA-N
56	2A	3672	ERY	C32-C6-C7-C8
56	2A	3672	ERY	C6-C7-C8-C33
56	2A	3672	ERY	O7-C5-C6-C7
56	2A	3672	ERY	C4-C5-C6-O10
55	1A	4026	HGR	C12-C14-C15-O7
55	2A	3671	HGR	C12-C14-C15-O7
55	2A	3671	HGR	C12-C14-C15-N1
55	1A	4026	HGR	C2-C3-O3-C10
55	2A	3671	HGR	C2-C3-O3-C10
57	1a	1882	MPD	C2-C3-C4-C5
55	1A	4026	HGR	C12-C14-C15-N1
56	2A	3672	ERY	C4-C5-C6-C32
56	1A	4027	ERY	C23-C24-N1-C29
58	1F	318	ARG	O-C-CA-CB
56	2A	3672	ERY	O9-C22-O7-C5
56	2A	3672	ERY	C25-C24-N1-C28
55	1A	4026	HGR	C16-C14-C15-O7
55	2A	3671	HGR	C16-C14-C15-O7
58	1F	318	ARG	OXT-C-CA-CB
56	2A	3672	ERY	C23-C22-O7-C5
55	2A	3671	HGR	C14-C12-C6-C1
58	1F	318	ARG	CA-CB-CG-CD
55	2A	3671	HGR	C16-C14-C15-N1

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Mol	Chain	Res	Type	Atoms
56	2A	3672	ERY	C6-C7-C8-C9
57	1A	4028	MPD	O2-C2-C3-C4
57	2A	3674	MPD	O2-C2-C3-C4
57	2A	3675	MPD	O2-C2-C3-C4
57	1A	4028	MPD	C2-C3-C4-O4
57	1a	1882	MPD	C2-C3-C4-O4
57	2A	3674	MPD	C2-C3-C4-O4
57	2A	3675	MPD	C2-C3-C4-O4
57	1a	1882	MPD	C1-C2-C3-C4
57	1a	1882	MPD	CM-C2-C3-C4
57	2A	3674	MPD	C1-C2-C3-C4
57	2A	3674	MPD	CM-C2-C3-C4
57	2A	3675	MPD	CM-C2-C3-C4
56	2A	3672	ERY	O10-C6-C7-C8
58	1B	230	ARG	O-C-CA-CB
56	1A	4027	ERY	C25-C24-N1-C28
55	1A	4026	HGR	C16-C14-C15-N1

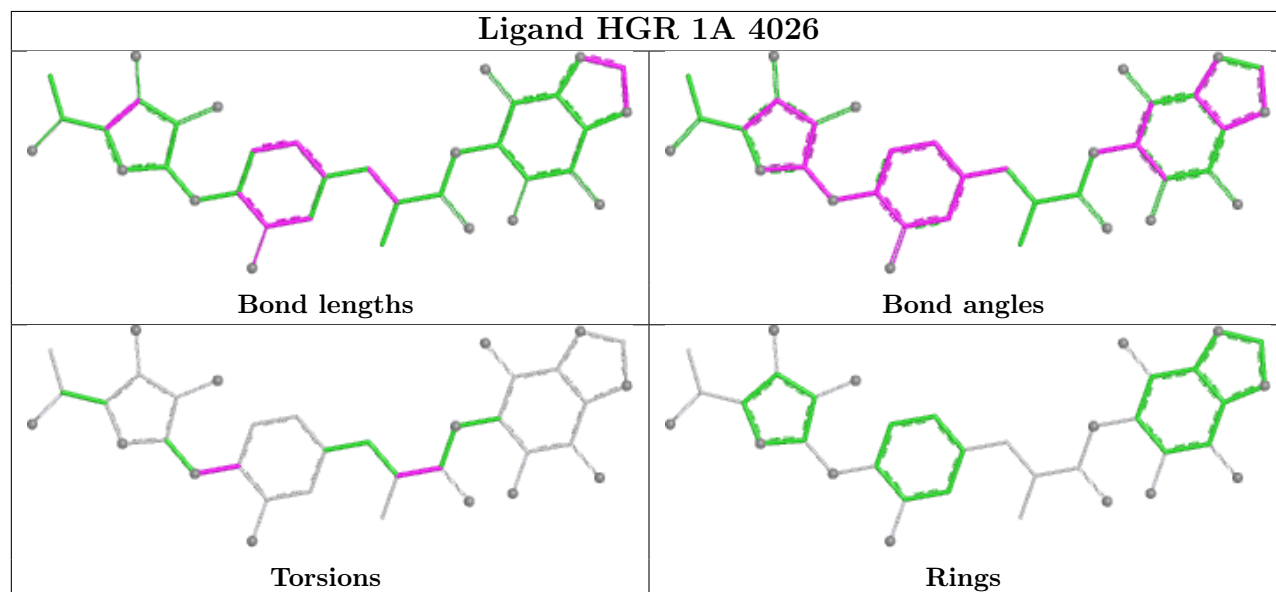
There are no ring outliers.

12 monomers are involved in 30 short contacts:

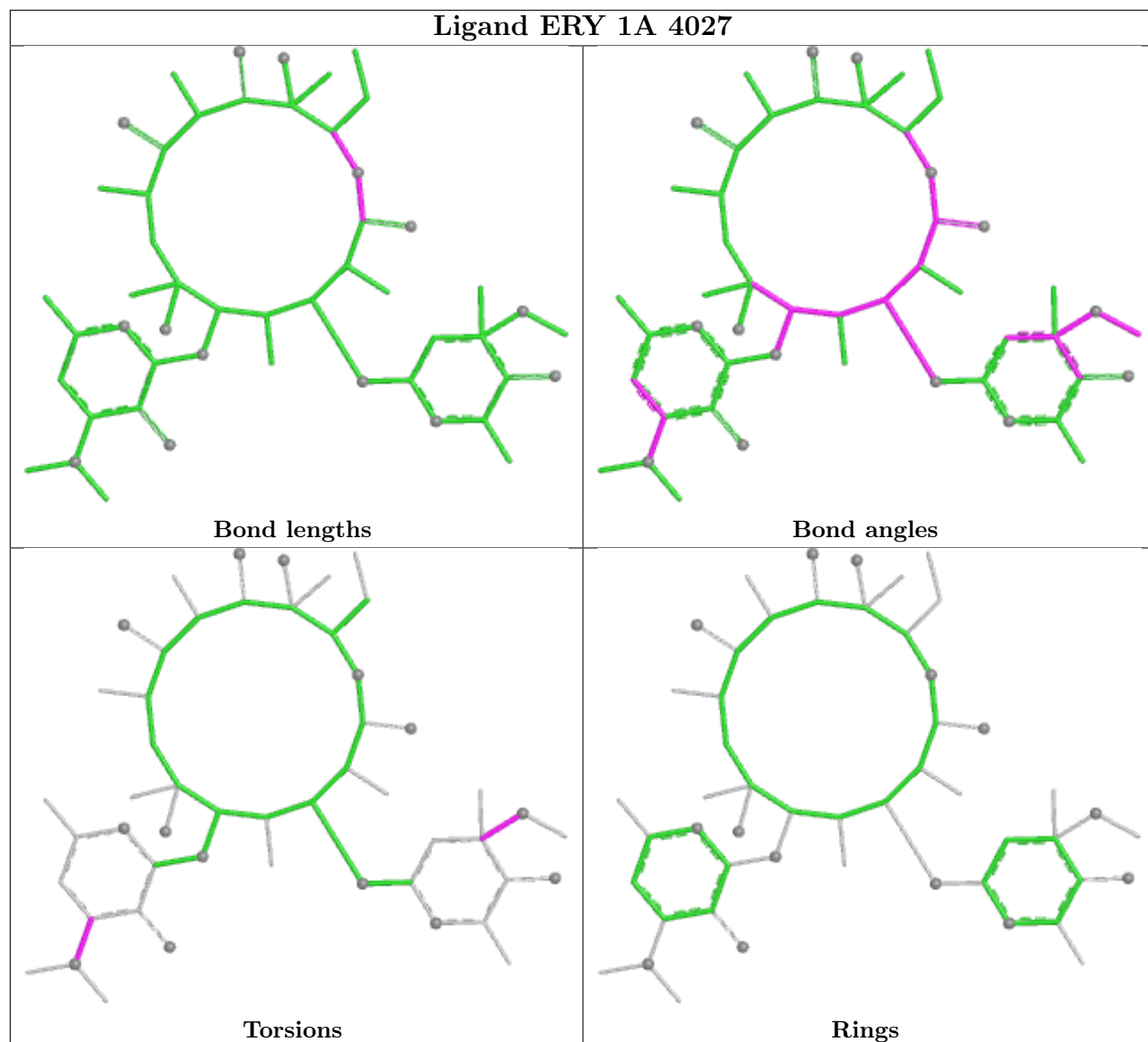
Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	1T	205	MPD	1	0
57	1a	1882	MPD	7	0
58	1B	230	ARG	1	0
57	1A	4028	MPD	1	0
55	1A	4026	HGR	2	0
56	1A	4027	ERY	5	0
57	18	103	MPD	1	0
57	2A	3673	MPD	2	0
56	2A	3672	ERY	6	0
60	2d	501	SF4	1	0
58	1F	318	ARG	2	0
55	2A	3671	HGR	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring

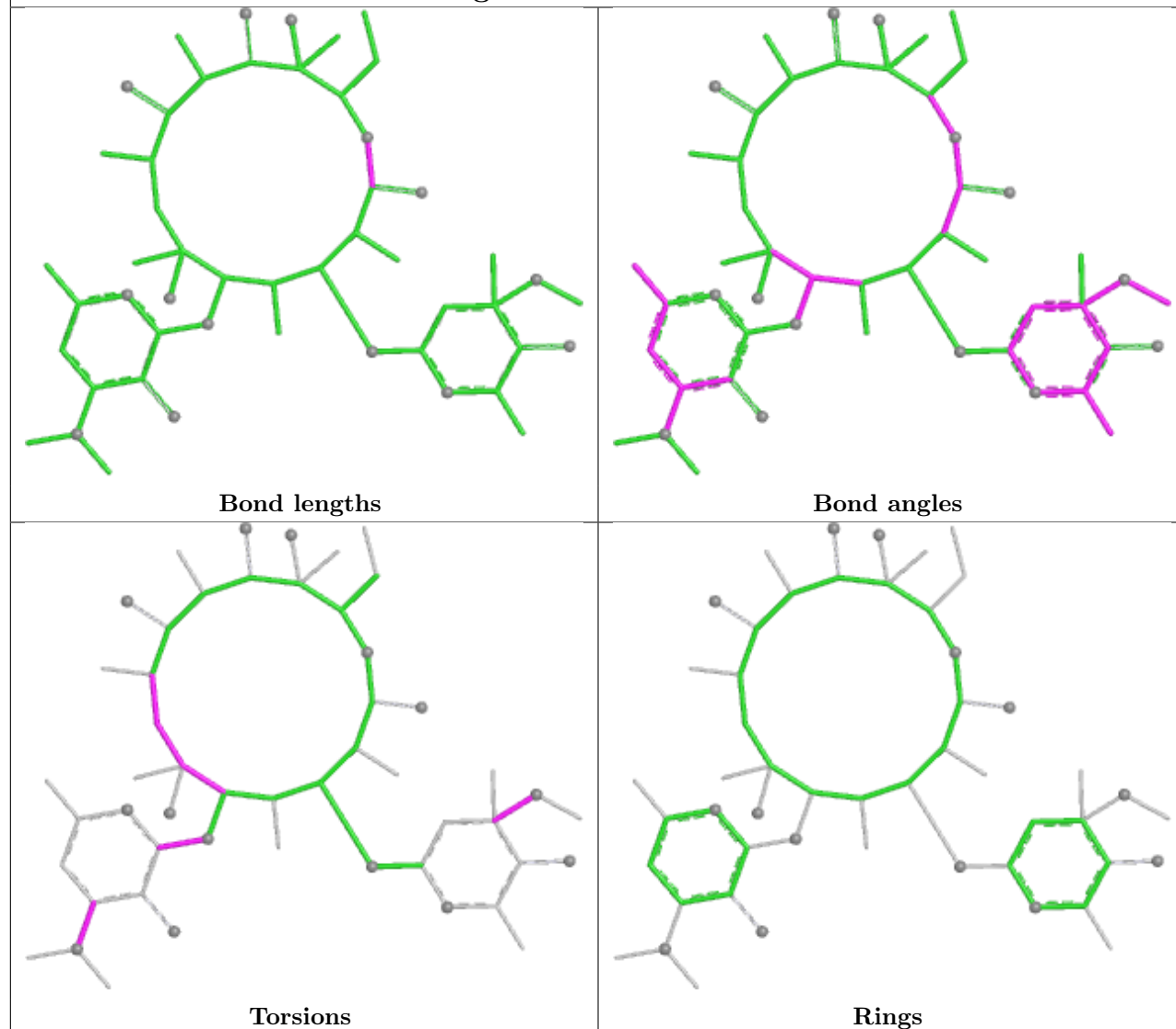
in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



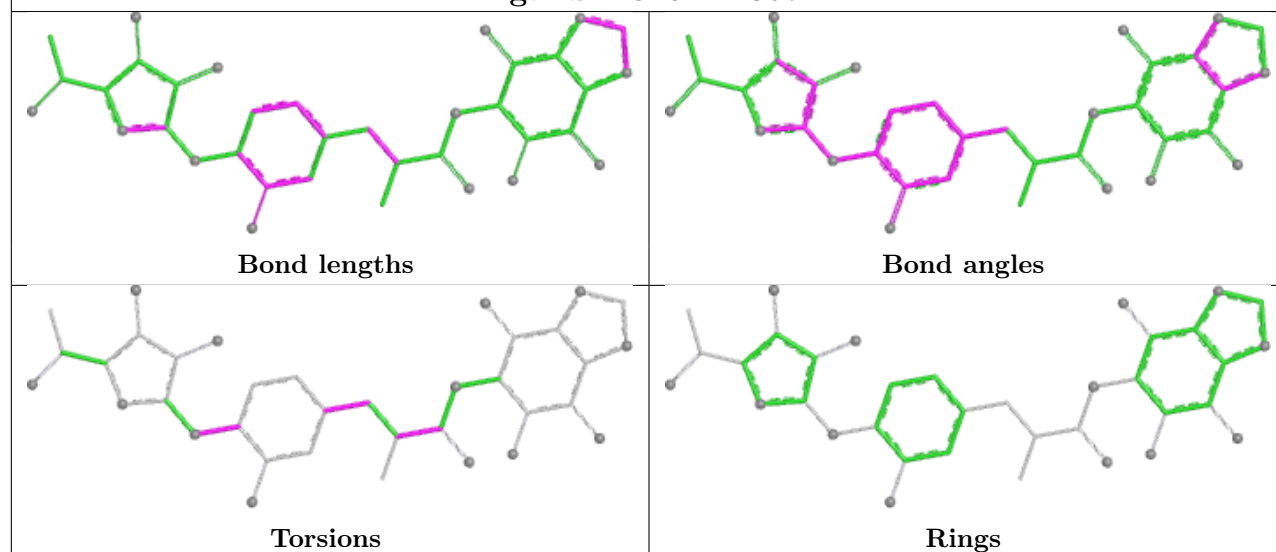
Ligand ERY 1A 4027



Ligand ERY 2A 3672



Ligand HGR 2A 3671



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	1A	2860/2915 (98%)	-0.38	156 (5%) 30 28	24, 41, 92, 103	0
1	2A	2855/2915 (97%)	0.09	178 (6%) 26 24	36, 58, 94, 103	0
2	1B	120/121 (99%)	-0.15	1 (0%) 82 83	38, 58, 68, 81	0
2	2B	120/121 (99%)	0.63	1 (0%) 82 83	62, 77, 84, 89	0
3	1D	275/276 (99%)	0.00	3 (1%) 78 79	26, 41, 54, 73	0
3	2D	275/276 (99%)	0.36	6 (2%) 62 64	35, 52, 63, 79	0
4	1E	204/206 (99%)	0.07	0 100 100	24, 44, 66, 73	0
4	2E	204/206 (99%)	0.47	2 (0%) 79 80	37, 59, 73, 78	0
5	1F	203/210 (96%)	0.22	3 (1%) 72 74	23, 48, 71, 81	0
5	2F	203/210 (96%)	0.62	2 (0%) 79 80	36, 66, 77, 84	0
6	1G	181/182 (99%)	0.90	11 (6%) 27 24	52, 68, 79, 89	0
6	2G	181/182 (99%)	1.70	57 (31%) 1 1	75, 81, 87, 92	0
7	1H	174/180 (96%)	0.39	1 (0%) 85 87	42, 56, 66, 72	0
7	2H	173/180 (96%)	1.29	31 (17%) 3 3	66, 79, 85, 87	0
8	1I	147/148 (99%)	1.08	16 (10%) 10 8	47, 72, 81, 86	0
8	2I	146/148 (98%)	1.21	17 (11%) 9 8	59, 74, 83, 86	0
9	1N	140/140 (100%)	-0.00	0 100 100	30, 43, 61, 76	0
9	2N	140/140 (100%)	0.72	0 100 100	49, 65, 75, 78	0
10	1O	122/122 (100%)	-0.03	1 (0%) 82 83	30, 43, 61, 67	0
10	2O	122/122 (100%)	0.55	2 (1%) 70 73	46, 56, 67, 73	0
11	1P	149/150 (99%)	0.15	0 100 100	25, 50, 68, 79	0
11	2P	149/150 (99%)	0.77	6 (4%) 42 41	42, 67, 79, 85	0
12	1Q	141/141 (100%)	0.08	3 (2%) 63 65	31, 46, 59, 67	0
12	2Q	141/141 (100%)	1.04	11 (7%) 19 16	49, 65, 73, 83	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	1R	118/118 (100%)	-0.10	0 100 100	29, 41, 54, 59	0
13	2R	118/118 (100%)	0.34	1 (0%) 82 83	42, 53, 63, 69	0
14	1S	110/112 (98%)	0.45	1 (0%) 81 82	45, 58, 69, 74	0
14	2S	110/112 (98%)	1.33	20 (18%) 3 3	65, 72, 77, 81	0
15	1T	131/146 (89%)	0.30	3 (2%) 61 63	36, 50, 70, 80	0
15	2T	131/146 (89%)	0.56	3 (2%) 61 63	50, 60, 77, 81	0
16	1U	116/118 (98%)	-0.16	1 (0%) 81 82	26, 36, 50, 67	0
16	2U	116/118 (98%)	0.53	1 (0%) 81 82	45, 62, 73, 80	0
17	1V	101/101 (100%)	0.03	1 (0%) 79 80	27, 47, 62, 67	0
17	2V	101/101 (100%)	0.80	2 (1%) 65 66	44, 71, 76, 78	0
18	1W	112/113 (99%)	-0.08	1 (0%) 81 82	29, 35, 54, 79	0
18	2W	112/113 (99%)	0.36	3 (2%) 56 57	42, 52, 68, 83	0
19	1X	95/96 (98%)	0.12	2 (2%) 63 65	33, 45, 64, 73	0
19	2X	95/96 (98%)	0.72	5 (5%) 32 30	51, 63, 75, 82	0
20	1Y	107/110 (97%)	0.38	0 100 100	40, 52, 66, 77	0
20	2Y	107/110 (97%)	1.09	10 (9%) 14 12	59, 68, 78, 84	0
21	1Z	203/206 (98%)	0.72	7 (3%) 48 48	47, 62, 73, 81	0
21	2Z	201/206 (97%)	1.21	22 (10%) 10 8	65, 75, 81, 88	0
22	10	77/85 (90%)	0.15	2 (2%) 57 58	35, 44, 58, 62	0
22	20	77/85 (90%)	1.10	9 (11%) 9 8	53, 65, 75, 79	0
23	11	97/98 (98%)	0.30	1 (1%) 79 80	34, 49, 69, 76	0
23	21	97/98 (98%)	0.50	5 (5%) 33 30	43, 57, 74, 78	0
24	12	70/72 (97%)	0.33	2 (2%) 53 55	42, 54, 65, 74	0
24	22	70/72 (97%)	0.77	2 (2%) 53 55	61, 69, 76, 77	0
25	13	59/60 (98%)	0.15	1 (1%) 69 71	34, 42, 66, 71	0
25	23	59/60 (98%)	0.92	4 (6%) 23 21	53, 63, 75, 81	0
26	14	69/71 (97%)	1.26	13 (18%) 3 2	64, 79, 86, 92	0
26	24	69/71 (97%)	2.13	37 (53%) 0 0	80, 86, 92, 95	0
27	15	59/60 (98%)	-0.08	1 (1%) 69 71	25, 39, 60, 70	0
27	25	59/60 (98%)	0.25	0 100 100	39, 53, 72, 77	0
28	16	53/54 (98%)	-0.01	0 100 100	40, 48, 60, 67	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	26	53/54 (98%)	0.55	2 (3%) 44 44	55, 61, 69, 73	0
29	17	48/49 (97%)	0.06	3 (6%) 26 23	26, 34, 60, 66	0
29	27	48/49 (97%)	0.45	4 (8%) 17 15	35, 44, 64, 71	0
30	18	64/65 (98%)	-0.09	0 100 100	33, 40, 46, 64	0
30	28	64/65 (98%)	0.90	5 (7%) 19 16	47, 56, 63, 67	0
31	19	37/37 (100%)	0.24	0 100 100	37, 45, 60, 61	0
31	29	37/37 (100%)	1.21	1 (2%) 56 57	59, 67, 75, 81	0
32	1a	1488/1521 (97%)	0.45	51 (3%) 48 48	41, 72, 91, 100	0
32	2a	1492/1521 (98%)	0.62	78 (5%) 33 30	50, 76, 92, 101	0
33	1b	231/256 (90%)	1.36	46 (19%) 3 2	66, 77, 85, 91	0
33	2b	231/256 (90%)	1.77	77 (33%) 1 1	72, 82, 88, 91	0
34	1c	206/239 (86%)	1.09	20 (9%) 13 11	63, 75, 83, 88	0
34	2c	206/239 (86%)	1.62	59 (28%) 1 1	73, 81, 86, 92	0
35	1d	208/209 (99%)	1.10	23 (11%) 10 8	58, 72, 79, 84	0
35	2d	208/209 (99%)	1.14	20 (9%) 13 11	62, 71, 79, 82	0
36	1e	148/162 (91%)	0.83	4 (2%) 56 57	56, 67, 74, 86	0
36	2e	148/162 (91%)	1.15	19 (12%) 7 6	61, 73, 80, 87	0
37	1f	100/101 (99%)	0.89	5 (5%) 34 32	59, 71, 77, 78	0
37	2f	100/101 (99%)	0.70	2 (2%) 65 66	60, 69, 75, 77	0
38	1g	155/156 (99%)	1.09	15 (9%) 13 11	67, 74, 79, 85	0
38	2g	155/156 (99%)	1.26	26 (16%) 4 3	73, 79, 84, 86	0
39	1h	137/138 (99%)	0.93	10 (7%) 21 18	58, 70, 76, 78	0
39	2h	137/138 (99%)	1.29	18 (13%) 7 6	63, 73, 78, 84	0
40	1i	127/128 (99%)	1.58	33 (25%) 1 1	66, 79, 83, 86	0
40	2i	126/128 (98%)	2.09	65 (51%) 0 0	73, 83, 87, 89	0
41	1j	97/105 (92%)	1.68	30 (30%) 1 1	67, 79, 84, 85	0
41	2j	96/105 (91%)	2.42	62 (64%) 0 0	74, 83, 87, 89	0
42	1k	114/129 (88%)	0.68	6 (5%) 32 30	48, 65, 75, 75	0
42	2k	114/129 (88%)	0.96	9 (7%) 18 16	58, 72, 80, 84	0
43	1l	121/132 (91%)	0.70	7 (5%) 29 26	52, 62, 71, 77	0
43	2l	121/132 (91%)	0.93	10 (8%) 17 15	52, 69, 76, 78	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	1m	116/126 (92%)	1.18	17 (14%) 6 4	65, 77, 82, 83	0
44	2m	114/126 (90%)	2.00	50 (43%) 0 0	77, 83, 86, 88	0
45	1n	60/61 (98%)	1.35	9 (15%) 5 4	70, 75, 81, 85	0
45	2n	60/61 (98%)	2.41	33 (55%) 0 0	75, 82, 87, 92	0
46	1o	88/89 (98%)	0.78	3 (3%) 48 48	51, 67, 75, 80	0
46	2o	88/89 (98%)	0.97	6 (6%) 23 21	60, 71, 78, 83	0
47	1p	82/88 (93%)	1.56	21 (25%) 1 1	64, 73, 80, 86	0
47	2p	82/88 (93%)	1.33	11 (13%) 7 6	62, 70, 77, 80	0
48	1q	99/105 (94%)	1.23	11 (11%) 10 8	59, 70, 76, 83	0
48	2q	99/105 (94%)	1.16	8 (8%) 18 16	59, 72, 78, 81	0
49	1r	68/88 (77%)	0.91	3 (4%) 39 38	61, 67, 77, 84	0
49	2r	68/88 (77%)	0.83	3 (4%) 39 38	62, 71, 79, 83	0
50	1s	83/93 (89%)	1.41	12 (14%) 6 4	73, 79, 84, 88	0
50	2s	83/93 (89%)	2.02	41 (49%) 0 0	77, 85, 89, 91	0
51	1t	96/106 (90%)	1.39	18 (18%) 3 2	66, 73, 81, 83	0
51	2t	98/106 (92%)	0.99	6 (6%) 27 24	59, 71, 82, 83	0
52	1u	23/27 (85%)	1.64	7 (30%) 1 1	73, 76, 78, 79	0
52	2u	23/27 (85%)	2.76	19 (82%) 0 0	78, 81, 82, 84	0
53	1y	97/113 (85%)	1.00	8 (8%) 17 15	58, 67, 75, 77	0
53	2y	96/113 (84%)	1.73	32 (33%) 1 1	69, 78, 84, 86	0
All	All	20764/21468 (96%)	0.53	1696 (8%) 17 15	23, 65, 87, 103	0

All (1696) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
45	2n	2	ALA	10.7
1	1A	652(V)	C	9.1
1	2A	652(C)	G	9.0
1	1A	653	A	8.5
1	1A	654	A	7.4
1	1A	652(D)	C	7.2
1	2A	654	A	6.8
1	1A	1087	G	6.4
1	1A	652(E)	G	6.3
1	1A	652(C)	G	6.2

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Mol	Chain	Res	Type	RSRZ
1	2A	653	A	6.1
1	1A	652(U)	G	6.0
7	1H	2	SER	5.8
1	1A	652(T)	C	5.5
44	1m	2	ALA	5.5
40	2i	102	LEU	5.4
45	1n	2	ALA	5.2
26	24	56	VAL	5.1
6	2G	87	PRO	5.1
40	1i	106	ALA	5.1
39	2h	2	LEU	5.1
1	2A	652(U)	G	5.0
1	1A	1072	C	5.0
41	2j	34	VAL	5.0
1	2A	2174	C	4.9
1	1A	1089	G	4.9
41	2j	55	LYS	4.9
1	2A	652(V)	C	4.8
1	1A	1091	G	4.8
1	2A	2136	C	4.7
1	2A	652(D)	C	4.7
40	2i	126	SER	4.6
12	2Q	59	ARG	4.6
50	2s	2	PRO	4.6
44	2m	98	VAL	4.6
45	2n	30	ALA	4.6
40	2i	41	VAL	4.6
51	1t	103	GLY	4.6
1	2A	2793	G	4.6
15	1T	131	ALA	4.6
1	1A	652(F)	G	4.6
52	2u	6	ARG	4.5
1	1A	1067	A	4.5
1	2A	652(B)	A	4.5
1	2A	2124	G	4.5
3	1D	276	LYS	4.5
32	2a	1030(A)	G	4.5
1	1A	1086	A	4.5
1	1A	652(S)	C	4.4
1	1A	2107	C	4.4
52	2u	23	PRO	4.4
6	1G	48	GLU	4.4

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Mol	Chain	Res	Type	RSRZ
8	2I	3	VAL	4.4
41	2j	37	PRO	4.4
26	24	55	ARG	4.4
51	2t	6	PRO	4.3
41	2j	38	ILE	4.3
26	24	49	PHE	4.3
1	1A	1088	A	4.3
1	2A	1046	A	4.3
32	1a	1036	G	4.3
44	2m	102	ARG	4.3
33	2b	67	THR	4.3
1	1A	1093	G	4.3
52	2u	14	TRP	4.3
6	2G	76	SER	4.3
1	2A	652(E)	G	4.2
44	2m	75	ALA	4.2
1	1A	1509	C	4.2
1	2A	1536	C	4.2
1	2A	2173	A	4.2
1	2A	2602	A	4.2
33	2b	214	ILE	4.2
1	1A	1081	U	4.2
53	1y	98	ALA	4.2
1	1A	1066	U	4.2
1	2A	2138	C	4.1
32	1a	1030	C	4.1
37	1f	90	VAL	4.1
35	1d	157	LEU	4.1
1	1A	1090	U	4.1
1	2A	2150	U	4.1
1	2A	2147	G	4.1
32	2a	1031	G	4.1
1	1A	1079	C	4.1
38	2g	5	ARG	4.1
33	2b	44	LEU	4.1
1	1A	1080	C	4.1
1	2A	1064	C	4.1
33	1b	131	PRO	4.1
33	1b	236	TYR	4.1
6	1G	46	ALA	4.0
6	2G	139	LEU	4.0
32	2a	1033	G	4.0

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Mol	Chain	Res	Type	RSRZ
25	23	2	PRO	4.0
1	1A	1073	A	4.0
1	1A	1092	C	4.0
45	2n	3	ARG	4.0
29	27	48	LYS	4.0
1	2A	2175	C	4.0
23	11	2	SER	4.0
26	14	59	PHE	4.0
15	2T	131	ALA	4.0
1	2A	1091	G	4.0
40	2i	105	ASP	4.0
1	1A	1076	C	4.0
1	2A	2107	C	4.0
32	1a	1001	A	3.9
1	2A	2140	C	3.9
21	2Z	191	VAL	3.9
1	1A	2147	G	3.9
1	1A	2805	G	3.9
1	2A	2162	G	3.9
1	1A	2174	C	3.9
1	1A	2803	C	3.9
53	2y	45	PRO	3.9
6	2G	3	LEU	3.9
52	2u	24	ARG	3.9
1	1A	1057	A	3.9
1	2A	2110	G	3.9
41	2j	91	PRO	3.9
26	14	49	PHE	3.9
33	2b	237	ALA	3.9
53	2y	98	ALA	3.9
45	2n	4	LYS	3.9
15	1T	130	ALA	3.8
45	2n	5	ALA	3.8
41	2j	19	SER	3.8
1	1A	1065	U	3.8
1	2A	2118	U	3.8
1	2A	2172	U	3.8
26	14	63	TYR	3.8
32	1a	1030(A)	G	3.8
44	2m	106	ASN	3.8
23	21	2	SER	3.8
1	1A	2161	C	3.8

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Mol	Chain	Res	Type	RSRZ
6	2G	62	LEU	3.8
40	2i	7	THR	3.8
50	2s	63	THR	3.8
1	2A	1085	A	3.8
34	1c	2	GLY	3.8
1	1A	2108	C	3.8
32	2a	1030(B)	C	3.8
51	1t	18	GLN	3.8
3	1D	275	LYS	3.7
33	2b	200	ILE	3.7
41	1j	4	ILE	3.7
44	2m	90	LEU	3.7
45	2n	6	LEU	3.7
1	2A	2139	C	3.7
1	1A	2119	A	3.7
1	2A	2119	A	3.7
32	2a	1286	A	3.7
1	2A	2145	C	3.7
1	1A	2159	G	3.7
1	2A	2125	G	3.7
32	2a	1202	G	3.7
33	2b	236	TYR	3.7
1	2A	652(T)	C	3.7
1	2A	2121	G	3.7
1	2A	2802	G	3.7
48	2q	98	LEU	3.7
26	24	29	PRO	3.7
1	2A	1067	A	3.6
53	2y	44	GLU	3.6
51	2t	103	GLY	3.6
1	2A	2133	G	3.6
32	2a	1001(A)	G	3.6
50	1s	13	ASP	3.6
45	2n	21	TYR	3.6
1	2A	1070	A	3.6
40	2i	127	LYS	3.6
1	1A	1064	C	3.6
7	2H	7	LEU	3.6
52	2u	15	ARG	3.6
1	1A	2117	A	3.6
1	2A	2169	A	3.6
40	2i	11	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
1	2A	2803	C	3.6
41	2j	62	HIS	3.6
1	2A	1066	U	3.6
32	2a	1257	U	3.6
40	2i	114	TYR	3.6
41	2j	36	GLY	3.6
44	2m	9	ILE	3.6
1	1A	1102	C	3.5
1	1A	1078	U	3.5
50	1s	9	VAL	3.5
1	2A	2153	G	3.5
1	2A	2168	G	3.5
6	2G	90	LEU	3.5
32	2a	1036	G	3.5
15	1T	37	GLY	3.5
44	2m	100	GLY	3.5
1	1A	1085	A	3.5
1	1A	1103	A	3.5
40	1i	21	PRO	3.5
44	2m	78	ILE	3.5
22	20	10	THR	3.5
33	2b	165	VAL	3.5
7	2H	21	PRO	3.5
53	2y	40	ILE	3.5
1	2A	1509	C	3.5
32	2a	1038	C	3.5
46	2o	86	GLY	3.5
33	2b	70	PHE	3.5
40	2i	18	PHE	3.5
1	1A	1077	A	3.5
1	2A	229	A	3.5
1	1A	2123	G	3.5
46	2o	88	ARG	3.5
34	2c	207	VAL	3.5
45	1n	13	THR	3.5
1	1A	1104	C	3.5
1	2A	1076	C	3.5
50	2s	16	LEU	3.5
14	2S	92	TYR	3.5
26	14	51	ASP	3.4
1	1A	2602	A	3.4
32	1a	1031	G	3.4

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Mol	Chain	Res	Type	RSRZ
32	2a	1032	G	3.4
41	1j	44	VAL	3.4
41	2j	24	VAL	3.4
44	2m	45	VAL	3.4
33	2b	131	PRO	3.4
1	1A	1101	U	3.4
32	1a	1029	C	3.4
33	2b	161	ALA	3.4
41	2j	26	ALA	3.4
41	2j	23	ILE	3.4
40	2i	49	PRO	3.4
45	2n	7	ILE	3.4
1	2A	2105	C	3.4
41	2j	54	PHE	3.4
33	2b	11	LEU	3.4
34	2c	5	ILE	3.4
50	2s	14	HIS	3.4
45	2n	31	ARG	3.4
34	2c	128	PHE	3.4
1	2A	2135	A	3.4
26	24	52	THR	3.4
45	2n	25	VAL	3.4
6	2G	39	ILE	3.4
26	24	14	ILE	3.4
1	2A	2127	G	3.3
1	2A	2805	G	3.3
32	2a	1030(C)	G	3.3
1	1A	2109	U	3.3
41	2j	47	PHE	3.3
33	2b	69	LEU	3.3
33	2b	187	LEU	3.3
41	2j	88	LEU	3.3
1	1A	2173	A	3.3
53	2y	38	HIS	3.3
40	2i	88	TYR	3.3
1	2A	1171	G	3.3
1	2A	2123	G	3.3
32	1a	1026	G	3.3
32	1a	1034	G	3.3
35	1d	166	LYS	3.3
33	1b	37	ASN	3.3
45	2n	13	THR	3.3

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Mol	Chain	Res	Type	RSRZ
41	2j	63	PHE	3.3
40	2i	36	TYR	3.3
8	1I	147	GLN	3.3
14	2S	61	ASN	3.3
1	1A	1071	G	3.3
11	2P	15	ARG	3.3
40	2i	14	VAL	3.3
44	2m	84	ILE	3.3
1	2A	2176	A	3.3
33	2b	71	VAL	3.3
41	2j	72	VAL	3.3
5	1F	208	GLY	3.3
34	2c	191	THR	3.3
52	2u	11	GLY	3.3
41	2j	82	ILE	3.3
34	2c	149	ALA	3.3
1	1A	1094	U	3.2
41	2j	90	LEU	3.2
44	2m	66	LEU	3.2
33	1b	7	VAL	3.2
33	2b	136	VAL	3.2
1	1A	1068	G	3.2
1	1A	2116	G	3.2
1	1A	2145	C	3.2
1	2A	2116	G	3.2
32	1a	1032	G	3.2
40	2i	122	ALA	3.2
50	2s	4	SER	3.2
34	1c	62	ASP	3.2
1	1A	2172	U	3.2
32	2a	1235	U	3.2
6	2G	109	VAL	3.2
7	2H	43	VAL	3.2
7	2H	44	VAL	3.2
34	1c	76	VAL	3.2
40	2i	115	GLY	3.2
41	2j	75	ILE	3.2
1	1A	2804	C	3.2
1	2A	1079	C	3.2
32	2a	1035	A	3.2
50	2s	76	PRO	3.2
26	24	67	TYR	3.2

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Mol	Chain	Res	Type	RSRZ
45	2n	58	LYS	3.2
1	2A	1083	U	3.2
21	2Z	42	VAL	3.2
41	2j	93	GLY	3.2
6	1G	52	ILE	3.2
6	2G	52	ILE	3.2
21	2Z	124	ILE	3.2
34	2c	77	ILE	3.2
45	2n	29	ARG	3.2
47	2p	82	GLN	3.2
1	2A	2137	C	3.2
1	2A	2896	C	3.2
14	2S	29	PHE	3.2
7	2H	71	LEU	3.2
19	1X	95	LEU	3.2
33	2b	155	LEU	3.2
40	2i	96	LEU	3.2
41	2j	77	PRO	3.2
33	2b	228	GLY	3.2
1	2A	2109	U	3.2
40	1i	64	THR	3.2
48	2q	68	ARG	3.1
53	2y	9	GLN	3.1
41	2j	58	ASP	3.1
48	1q	100	LYS	3.1
1	1A	1062	G	3.1
1	1A	2125	G	3.1
1	2A	2104	G	3.1
1	2A	2149	G	3.1
1	2A	2111	C	3.1
1	2A	2179	C	3.1
32	1a	1030(B)	C	3.1
32	2a	1045	C	3.1
5	1F	207	GLY	3.1
1	2A	2152	G	3.1
1	2A	2154	G	3.1
6	2G	28	VAL	3.1
45	2n	33	VAL	3.1
26	24	22	ILE	3.1
26	24	58	ARG	3.1
26	24	63	TYR	3.1
34	2c	152	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
41	2j	67	THR	3.1
45	2n	12	ARG	3.1
53	1y	2	THR	3.1
1	1A	2150	U	3.1
35	2d	48	ALA	3.1
6	2G	2	PRO	3.1
26	24	59	PHE	3.1
33	1b	19	HIS	3.1
50	2s	71	LEU	3.1
33	2b	72	GLY	3.1
52	2u	4	GLY	3.1
26	14	56	VAL	3.1
39	2h	3	THR	3.1
1	1A	2793	G	3.1
1	2A	1044	G	3.1
1	2A	2117	A	3.1
21	2Z	192	ALA	3.1
32	1a	1030(C)	G	3.1
32	1a	1035	A	3.1
32	2a	1004	A	3.1
33	2b	132	LYS	3.1
34	2c	129	ALA	3.1
45	1n	4	LYS	3.1
33	2b	163	PHE	3.1
45	2n	61	TRP	3.1
50	2s	3	ARG	3.1
45	2n	38	GLY	3.1
34	2c	130	VAL	3.1
41	2j	44	VAL	3.1
41	2j	49	VAL	3.1
50	2s	31	ILE	3.1
52	2u	13	ILE	3.1
53	2y	54	ILE	3.1
40	1i	127	LYS	3.0
40	1i	46	ALA	3.0
1	2A	1096	A	3.0
32	1a	1030(D)	A	3.0
1	2A	1074	G	3.0
1	2A	2155	G	3.0
1	2A	2894	G	3.0
42	2k	125	PHE	3.0
12	2Q	60	ARG	3.0

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Mol	Chain	Res	Type	RSRZ
35	2d	47	ARG	3.0
34	2c	159	GLY	3.0
6	2G	5	VAL	3.0
6	2G	20	ILE	3.0
14	2S	46	VAL	3.0
21	1Z	96	VAL	3.0
34	2c	8	ILE	3.0
50	2s	77	THR	3.0
1	2A	2161	C	3.0
36	1e	21	ALA	3.0
40	2i	119	ALA	3.0
26	14	67	TYR	3.0
1	1A	6	A	3.0
1	2A	2170	A	3.0
51	1t	24	LEU	3.0
33	1b	17	PHE	3.0
38	2g	43	PHE	3.0
1	1A	2894	G	3.0
1	2A	1062	G	3.0
1	2A	2106	G	3.0
1	2A	2181	G	3.0
51	1t	11	SER	3.0
53	2y	64	SER	3.0
34	1c	9	GLY	3.0
44	2m	24	GLY	3.0
7	2H	136	ILE	3.0
41	2j	6	ILE	3.0
42	1k	42	TRP	3.0
45	2n	18	VAL	3.0
44	2m	116	THR	3.0
34	2c	163	ALA	3.0
44	2m	72	ALA	3.0
43	1l	64	TYR	3.0
1	1A	2171	A	3.0
32	1a	1033	G	3.0
32	2a	1216	G	3.0
8	1I	107	VAL	3.0
34	2c	195	VAL	3.0
8	2I	146	ALA	3.0
41	2j	46	ARG	3.0
43	2l	19	ARG	3.0
32	1a	1037	C	3.0

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Mol	Chain	Res	Type	RSRZ
50	2s	30	LEU	3.0
44	2m	46	LYS	3.0
50	2s	12	ASP	3.0
1	1A	1095	A	3.0
1	2A	6	A	3.0
1	2A	2801(A)	A	3.0
32	2a	1001	A	3.0
40	2i	6	GLY	3.0
6	2G	157	ILE	2.9
33	2b	185	ILE	2.9
35	2d	5	ILE	2.9
36	2e	13	ILE	2.9
41	1j	74	ILE	2.9
26	24	57	GLU	2.9
41	1j	86	MET	2.9
53	1y	70	MET	2.9
42	2k	126	ARG	2.9
53	2y	37	PRO	2.9
41	1j	90	LEU	2.9
47	2p	38	TYR	2.9
6	1G	76	SER	2.9
35	1d	167	GLY	2.9
45	1n	7	ILE	2.9
40	2i	108	VAL	2.9
40	2i	109	VAL	2.9
6	1G	83	ARG	2.9
21	2Z	173	ALA	2.9
33	2b	21	ARG	2.9
41	2j	53	PRO	2.9
44	2m	41	PRO	2.9
40	1i	95	LYS	2.9
45	2n	9	LYS	2.9
34	2c	33	LEU	2.9
40	1i	19	LEU	2.9
6	2G	147	ASP	2.9
33	2b	57	PHE	2.9
1	1A	2118	U	2.9
52	2u	2	GLY	2.9
1	2A	1073	A	2.9
50	2s	41	VAL	2.9
46	1o	88	ARG	2.9
40	2i	13	ALA	2.9

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Mol	Chain	Res	Type	RSRZ
38	1g	156	TRP	2.9
1	2A	2120	G	2.9
38	2g	154	TYR	2.9
33	2b	152	PHE	2.9
40	2i	59	PHE	2.9
40	2i	101	PHE	2.9
50	2s	10	PHE	2.9
8	1I	99	GLU	2.9
1	1A	2167	U	2.9
1	2A	2130	U	2.9
18	2W	60	ASN	2.9
32	1a	1000	U	2.9
6	2G	140	ILE	2.9
6	2G	70	VAL	2.9
29	27	47	ARG	2.9
34	2c	68	VAL	2.9
3	2D	275	LYS	2.9
50	2s	33	THR	2.9
15	2T	130	ALA	2.9
29	17	45	ALA	2.9
33	1b	29	ALA	2.9
44	2m	18	ALA	2.9
45	2n	14	PRO	2.9
33	2b	196	LEU	2.9
51	1t	10	LEU	2.9
33	1b	97	TRP	2.9
47	1p	48	TRP	2.9
1	1A	1099	G	2.9
26	24	30	GLU	2.9
34	2c	171	GLY	2.9
53	2y	7	SER	2.8
1	1A	1082	U	2.8
1	1A	2122	U	2.8
1	1A	2130	U	2.8
1	2A	2180	U	2.8
29	17	48	LYS	2.8
44	2m	65	LYS	2.8
26	24	50	VAL	2.8
49	1r	86	VAL	2.8
1	2A	1084	A	2.8
50	2s	42	PRO	2.8
41	2j	32	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
49	2r	20	ALA	2.8
34	2c	52	LEU	2.8
44	2m	70	LEU	2.8
40	1i	91	ASP	2.8
43	2l	126	LYS	2.8
1	2A	2148	G	2.8
32	2a	1002	G	2.8
33	1b	127	ILE	2.8
33	2b	68	ILE	2.8
1	1A	1061	U	2.8
1	1A	1083	U	2.8
1	2A	2122	U	2.8
1	2A	2167	U	2.8
6	2G	92	VAL	2.8
7	2H	173	PRO	2.8
1	2A	1075	C	2.8
40	2i	43	ALA	2.8
40	2i	106	ALA	2.8
53	2y	50	ALA	2.8
1	2A	2126	A	2.8
1	2A	2171	A	2.8
41	2j	65	LEU	2.8
47	1p	1	MET	2.8
14	2S	33	LYS	2.8
26	24	28	LYS	2.8
50	2s	78	ARG	2.8
7	2H	174	GLY	2.8
40	1i	125	TYR	2.8
6	2G	144	ILE	2.8
41	2j	76	ASN	2.8
42	2k	117	ASN	2.8
50	2s	35	SER	2.8
33	2b	15	VAL	2.8
32	1a	1001(A)	G	2.8
1	1A	271(K)	U	2.8
6	2G	71	THR	2.8
14	2S	47	THR	2.8
22	20	43	THR	2.8
29	27	45	ALA	2.8
45	1n	5	ALA	2.8
50	1s	77	THR	2.8
53	2y	53	THR	2.8

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Mol	Chain	Res	Type	RSRZ
34	2c	94	LEU	2.8
50	2s	15	LEU	2.8
1	2A	2178	C	2.8
20	2Y	5	MET	2.8
6	2G	45	GLU	2.8
49	2r	87	ARG	2.8
52	2u	9	ARG	2.8
26	24	45	GLY	2.8
33	2b	66	GLY	2.8
50	2s	68	GLY	2.8
44	2m	4	ILE	2.8
20	2Y	31	LEU	2.8
26	24	44	THR	2.8
33	2b	13	ALA	2.8
33	2b	186	ALA	2.8
50	2s	79	THR	2.8
1	1A	2112	G	2.8
1	1A	2148	G	2.8
1	1A	2792	G	2.8
1	1A	154(A)	C	2.8
1	1A	2169	A	2.8
1	1A	2794	C	2.8
1	2A	2129	C	2.8
40	2i	91	ASP	2.8
33	2b	40	HIS	2.8
11	2P	82	GLY	2.7
40	1i	8	GLY	2.7
50	1s	8	GLY	2.7
6	2G	63	ILE	2.7
44	1m	4	ILE	2.7
44	1m	39	ILE	2.7
53	2y	39	ILE	2.7
35	2d	20	TYR	2.7
41	1j	78	ASN	2.7
29	17	46	VAL	2.7
38	2g	80	VAL	2.7
41	1j	34	VAL	2.7
44	2m	7	VAL	2.7
48	1q	23	VAL	2.7
33	1b	187	LEU	2.7
41	2j	8	LEU	2.7
34	2c	60	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
34	2c	65	ALA	2.7
39	2h	124	ALA	2.7
45	1n	20	ALA	2.7
33	2b	75	LYS	2.7
34	2c	4	LYS	2.7
35	2d	166	LYS	2.7
41	2j	83	GLU	2.7
32	1a	1023	G	2.7
1	2A	888	C	2.7
1	2A	2177	C	2.7
26	24	54	GLY	2.7
34	2c	80	GLY	2.7
36	1e	85	GLY	2.7
40	2i	39	GLY	2.7
46	2o	89	GLY	2.7
21	1Z	133	ILE	2.7
38	1g	84	ASN	2.7
26	14	50	VAL	2.7
41	2j	59	SER	2.7
47	2p	39	TYR	2.7
6	2G	152	LEU	2.7
6	1G	50	ALA	2.7
10	2O	33	ALA	2.7
21	1Z	192	ALA	2.7
30	28	29	LYS	2.7
40	1i	15	ALA	2.7
41	2j	27	ALA	2.7
41	2j	92	THR	2.7
44	2m	63	THR	2.7
44	2m	76	ALA	2.7
44	2m	105	THR	2.7
53	2y	43	LYS	2.7
32	1a	1257	U	2.7
53	2y	51	ASP	2.7
1	2A	1089	G	2.7
32	2a	1190	G	2.7
1	1A	2896	C	2.7
1	2A	2108	C	2.7
6	1G	80	PHE	2.7
41	2j	52	GLY	2.7
32	2a	1030	C	2.7
45	2n	16	PHE	2.7

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Mol	Chain	Res	Type	RSRZ
33	1b	200	ILE	2.7
7	2H	169	VAL	2.7
26	24	10	VAL	2.7
6	2G	100	TRP	2.7
21	2Z	99	TYR	2.7
26	24	66	SER	2.7
40	1i	17	VAL	2.7
43	1l	18	VAL	2.7
33	2b	10	LEU	2.7
33	2b	121	LEU	2.7
38	2g	16	LEU	2.7
38	2g	156	TRP	2.7
40	2i	4	TYR	2.7
48	1q	97	SER	2.7
26	24	9	LEU	2.7
7	2H	129	THR	2.7
33	1b	36	ARG	2.7
41	2j	87	THR	2.7
6	2G	26	GLN	2.7
33	2b	95	GLN	2.7
1	1A	1060	U	2.7
1	2A	271(N)	U	2.7
1	2A	1065	U	2.7
33	1b	39	ILE	2.7
33	1b	125	PRO	2.7
34	2c	7	PRO	2.7
1	1A	1069	A	2.7
1	1A	2149	G	2.7
1	1A	2153	G	2.7
32	2a	973	G	2.7
1	1A	2143	C	2.7
1	2A	1095	A	2.7
1	2A	2103	C	2.7
1	2A	2146	C	2.7
1	2A	2185	C	2.7
32	2a	1223	C	2.7
20	2Y	1	MET	2.7
33	2b	230	VAL	2.7
34	1c	64	VAL	2.7
40	1i	126	SER	2.7
40	2i	53	VAL	2.7
53	2y	61	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
44	1m	87	TYR	2.7
44	2m	87	TYR	2.7
46	1o	69	TYR	2.7
34	2c	95	THR	2.7
50	1s	24	ALA	2.7
51	1t	76	ALA	2.7
33	2b	232	PRO	2.6
45	2n	36	PHE	2.6
1	2A	2134	A	2.6
33	2b	7	VAL	2.6
50	2s	9	VAL	2.6
1	1A	1063	G	2.6
1	1A	1074	G	2.6
6	2G	78	SER	2.6
33	2b	12	GLU	2.6
21	2Z	189	ALA	2.6
33	2b	148	TYR	2.6
34	1c	15	THR	2.6
38	2g	152	ALA	2.6
39	2h	70	GLN	2.6
40	2i	5	TYR	2.6
40	2i	94	ALA	2.6
44	2m	42	ALA	2.6
44	2m	59	TYR	2.6
45	2n	20	ALA	2.6
50	2s	80	TYR	2.6
50	2s	70	LYS	2.6
34	2c	124	ILE	2.6
38	1g	43	PHE	2.6
40	1i	101	PHE	2.6
47	1p	19	ILE	2.6
4	2E	182	LEU	2.6
41	2j	78	ASN	2.6
5	1F	6	VAL	2.6
7	2H	26	VAL	2.6
12	2Q	102	VAL	2.6
1	1A	1070	A	2.6
1	1A	1098	A	2.6
32	2a	1357	A	2.6
1	1A	1075	C	2.6
1	1A	2138	C	2.6
32	1a	1027	C	2.6

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Mol	Chain	Res	Type	RSRZ
33	2b	168	THR	2.6
41	2j	100	THR	2.6
44	1m	116	THR	2.6
44	2m	51	ALA	2.6
1	1A	1176	G	2.6
47	1p	38	TYR	2.6
8	1I	87	LYS	2.6
20	2Y	88	LYS	2.6
18	2W	112	GLY	2.6
34	2c	185	GLY	2.6
50	2s	8	GLY	2.6
26	24	48	ARG	2.6
34	1c	73	PRO	2.6
39	2h	30	ARG	2.6
39	2h	122	ARG	2.6
41	1j	46	ARG	2.6
33	1b	122	PHE	2.6
40	1i	18	PHE	2.6
7	2H	171	LEU	2.6
40	2i	40	LEU	2.6
7	2H	19	VAL	2.6
33	2b	93	VAL	2.6
34	2c	3	ASN	2.6
44	2m	74	VAL	2.6
22	20	9	SER	2.6
32	1a	383	A	2.6
32	2a	1236	A	2.6
33	2b	16	HIS	2.6
52	2u	8	THR	2.6
1	1A	888	C	2.6
1	1A	2129	C	2.6
1	2A	1118	C	2.6
1	2A	2143	C	2.6
32	1a	1038	C	2.6
1	1A	2124	G	2.6
1	1A	2166	G	2.6
45	1n	61	TRP	2.6
47	2p	59	TRP	2.6
8	2I	137	PRO	2.6
26	14	17	GLY	2.6
34	2c	158	GLY	2.6
36	2e	52	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
40	2i	67	GLY	2.6
41	2j	10	GLY	2.6
44	1m	100	GLY	2.6
48	1q	63	ARG	2.6
52	2u	5	ASP	2.6
47	1p	4	ILE	2.6
12	2Q	65	PHE	2.6
32	2a	1532	U	2.6
6	2G	53	LEU	2.6
21	2Z	125	LEU	2.6
38	1g	59	LEU	2.6
44	1m	56	LEU	2.6
36	2e	55	VAL	2.6
43	2l	18	VAL	2.6
50	2s	11	VAL	2.6
50	2s	24	ALA	2.6
35	1d	169	LYS	2.6
53	2y	66	LYS	2.6
52	1u	18	TYR	2.6
1	2A	2128	C	2.5
1	2A	2804	C	2.5
7	2H	101	ARG	2.5
47	2p	48	TRP	2.5
33	1b	14	GLY	2.5
35	1d	2	GLY	2.5
35	1d	180	GLY	2.5
40	1i	49	PRO	2.5
44	2m	10	PRO	2.5
1	1A	2160	G	2.5
1	2A	1063	G	2.5
1	2A	1071	G	2.5
26	24	31	ILE	2.5
35	1d	179	GLU	2.5
1	2A	2895	U	2.5
28	26	11	LEU	2.5
39	1h	2	LEU	2.5
47	1p	6	LEU	2.5
47	1p	49	LEU	2.5
16	1U	117	GLN	2.5
21	2Z	96	VAL	2.5
26	24	35	VAL	2.5
53	2y	46	GLN	2.5

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Mol	Chain	Res	Type	RSRZ
53	2y	49	VAL	2.5
18	1W	111	HIS	2.5
41	1j	35	SER	2.5
43	2l	30	ALA	2.5
52	2u	3	LYS	2.5
53	2y	42	SER	2.5
40	2i	42	ARG	2.5
1	1A	887	A	2.5
40	2i	125	TYR	2.5
1	1A	2139	C	2.5
1	2A	886	C	2.5
6	1G	44	GLY	2.5
34	2c	78	GLY	2.5
35	1d	29	PRO	2.5
32	2a	1363	C	2.5
8	2I	71	ILE	2.5
41	1j	38	ILE	2.5
52	1u	14	TRP	2.5
34	2c	10	PHE	2.5
40	2i	37	PHE	2.5
1	1A	2115	G	2.5
1	1A	2120	G	2.5
1	2A	2159	G	2.5
32	2a	630	G	2.5
32	2a	1048	G	2.5
40	2i	99	LEU	2.5
41	1j	71	LEU	2.5
6	2G	81	LYS	2.5
8	2I	107	VAL	2.5
33	2b	22	LYS	2.5
38	1g	17	VAL	2.5
47	1p	35	LYS	2.5
53	2y	91	LYS	2.5
33	1b	237	ALA	2.5
34	2c	187	ALA	2.5
53	2y	6	THR	2.5
14	2S	36	TYR	2.5
1	2A	1111	A	2.5
12	2Q	30	GLY	2.5
33	1b	228	GLY	2.5
34	2c	2	GLY	2.5
33	2b	193	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
8	2I	4	ILE	2.5
14	2S	82	ILE	2.5
53	2y	5	ILE	2.5
1	2A	1109	C	2.5
1	2A	2789	C	2.5
32	2a	1260	C	2.5
22	20	69	PHE	2.5
34	2c	196	LEU	2.5
40	1i	56	LEU	2.5
40	2i	19	LEU	2.5
44	1m	19	LEU	2.5
48	2q	71	PHE	2.5
39	2h	56	LYS	2.5
41	2j	14	LYS	2.5
41	2j	80	LYS	2.5
1	2A	2897	U	2.5
2	2B	1	U	2.5
32	2a	1000	U	2.5
38	2g	9	VAL	2.5
50	1s	23	ASN	2.5
1	1A	1058	G	2.5
1	1A	2165	G	2.5
1	2A	2157	G	2.5
34	2c	189	ALA	2.5
36	1e	113	ALA	2.5
38	2g	76	ARG	2.5
45	2n	59	ALA	2.5
48	1q	68	ARG	2.5
53	1y	97	ALA	2.5
6	2G	179	PRO	2.5
25	13	2	PRO	2.5
8	2I	90	GLY	2.5
33	2b	92	TYR	2.5
40	2i	92	TYR	2.5
21	2Z	137	ILE	2.5
35	2d	158	ILE	2.5
48	2q	65	ILE	2.5
1	1A	2176	A	2.5
1	1A	2790	A	2.5
32	2a	994	A	2.5
14	2S	32	LEU	2.5
36	2e	12	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
43	1l	17	LYS	2.5
1	2A	1080	C	2.5
7	2H	45	VAL	2.5
14	2S	28	VAL	2.5
33	1b	15	VAL	2.5
33	1b	165	VAL	2.5
36	2e	51	VAL	2.5
41	1j	69	ASN	2.5
42	2k	14	VAL	2.5
1	2A	1026	U	2.5
34	2c	200	ALA	2.5
38	1g	2	ALA	2.5
38	2g	2	ALA	2.5
36	2e	10	MET	2.5
41	2j	81	THR	2.5
47	1p	44	THR	2.5
1	1A	1056	G	2.5
34	1c	174	PRO	2.4
6	2G	146	TYR	2.4
19	2X	69	TYR	2.4
33	2b	172	ILE	2.4
34	1c	193	TYR	2.4
36	2e	101	ILE	2.4
42	2k	75	TYR	2.4
45	2n	39	LEU	2.4
53	1y	41	LEU	2.4
1	1A	548	A	2.4
1	1A	2126	A	2.4
1	2A	1086	A	2.4
1	2A	2629	A	2.4
12	2Q	104	PHE	2.4
32	2a	1030(D)	A	2.4
32	2a	1092	A	2.4
40	2i	111	ARG	2.4
1	1A	2142	C	2.4
1	1A	2146	C	2.4
31	29	16	VAL	2.4
32	1a	63	C	2.4
32	2a	470	C	2.4
34	2c	76	VAL	2.4
1	2A	1081	U	2.4
6	2G	57	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
32	1a	1025	U	2.4
38	2g	116	ALA	2.4
41	2j	18	ALA	2.4
41	1j	42	THR	2.4
50	1s	4	SER	2.4
8	2I	134	PRO	2.4
20	2Y	91	GLU	2.4
1	1A	1173	G	2.4
1	2A	2141	G	2.4
1	2A	2165	G	2.4
30	28	21	LYS	2.4
44	2m	31	LYS	2.4
51	1t	68	LYS	2.4
17	2V	96	ILE	2.4
35	1d	158	ILE	2.4
39	1h	134	ILE	2.4
8	2I	5	LEU	2.4
24	12	70	GLN	2.4
35	1d	138	TYR	2.4
35	1d	194	LEU	2.4
35	2d	157	LEU	2.4
44	1m	59	TYR	2.4
34	1c	10	PHE	2.4
52	1u	24	ARG	2.4
1	1A	2170	A	2.4
32	2a	1363(A)	A	2.4
28	26	42	TRP	2.4
33	2b	97	TRP	2.4
47	2p	20	VAL	2.4
30	28	25	MET	2.4
1	1A	1053	C	2.4
1	1A	1100	C	2.4
1	2A	1092	C	2.4
32	2a	1037	C	2.4
32	2a	1362	C	2.4
34	2c	133	ALA	2.4
53	2y	97	ALA	2.4
39	2h	24	THR	2.4
41	2j	42	THR	2.4
7	2H	128	PRO	2.4
40	2i	113	LYS	2.4
36	2e	39	GLY	2.4

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Mol	Chain	Res	Type	RSRZ
26	24	39	CYS	2.4
33	2b	162	ILE	2.4
39	1h	109	ILE	2.4
52	1u	5	ASP	2.4
32	1a	220	G	2.4
32	2a	1034	G	2.4
32	2a	1224	G	2.4
32	2a	1356	G	2.4
33	1b	154	LEU	2.4
35	2d	155	LEU	2.4
40	1i	102	LEU	2.4
41	1j	88	LEU	2.4
41	2j	71	LEU	2.4
48	2q	84	LEU	2.4
41	2j	5	ARG	2.4
50	2s	69	HIS	2.4
33	2b	164	VAL	2.4
35	1d	8	VAL	2.4
1	1A	655	A	2.4
32	2a	532	A	2.4
36	2e	21	ALA	2.4
50	2s	34	TRP	2.4
1	1A	2178	C	2.4
1	2A	277	C	2.4
6	2G	142	PRO	2.4
40	2i	112	LYS	2.4
51	2t	98	PRO	2.4
32	1a	1040	U	2.4
32	1a	1212	U	2.4
33	1b	38	GLY	2.4
34	2c	81	GLY	2.4
39	2h	47	GLY	2.4
6	2G	77	ILE	2.4
14	2S	35	ILE	2.4
33	1b	222	ILE	2.4
33	2b	208	ILE	2.4
33	2b	222	ILE	2.4
39	1h	80	ILE	2.4
40	1i	63	ILE	2.4
40	1i	81	ILE	2.4
42	1k	21	ILE	2.4
6	2G	43	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
19	2X	92	LEU	2.4
19	2X	95	LEU	2.4
21	1Z	91	LEU	2.4
22	10	84	LEU	2.4
22	20	84	LEU	2.4
33	1b	44	LEU	2.4
40	2i	75	ASP	2.4
41	2j	45	ARG	2.4
44	2m	48	LEU	2.4
1	2A	1047	G	2.4
1	2A	2151	G	2.4
3	2D	15	PHE	2.4
26	24	25	TYR	2.4
29	27	1	MET	2.4
32	2a	1003	G	2.4
6	2G	38	VAL	2.4
16	2U	63	VAL	2.4
40	1i	14	VAL	2.4
44	2m	12	ASN	2.4
35	1d	149	ALA	2.4
41	2j	7	LYS	2.4
1	2A	2310	A	2.4
1	2A	2892	A	2.4
40	1i	7	THR	2.3
1	1A	1097	U	2.3
1	1A	2897	U	2.3
1	1A	2140	C	2.3
1	2A	1049	C	2.3
1	2A	2142	C	2.3
14	2S	60	GLY	2.3
32	1a	1007	C	2.3
32	2a	1029	C	2.3
22	20	55	ARG	2.3
34	2c	57	ILE	2.3
38	2g	32	ARG	2.3
39	2h	119	LEU	2.3
40	2i	63	ILE	2.3
40	2i	117	HIS	2.3
41	1j	85	LEU	2.3
41	2j	68	HIS	2.3
49	2r	58	LEU	2.3
20	2Y	89	PHE	2.3

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Mol	Chain	Res	Type	RSRZ
45	2n	37	PHE	2.3
38	1g	75	VAL	2.3
41	2j	57	LYS	2.3
47	2p	62	VAL	2.3
50	2s	67	VAL	2.3
51	1t	81	LYS	2.3
1	1A	2133	G	2.3
1	2A	883	G	2.3
1	2A	2112	G	2.3
1	2A	2166	G	2.3
32	1a	630	G	2.3
32	1a	1024	G	2.3
33	2b	194	PRO	2.3
38	2g	14	PRO	2.3
40	2i	123	PRO	2.3
47	1p	15	PRO	2.3
21	1Z	69	THR	2.3
34	2c	192	THR	2.3
44	2m	49	THR	2.3
47	2p	69	THR	2.3
1	2A	652(A)	A	2.3
32	1a	1447	A	2.3
8	1I	106	GLY	2.3
24	12	69	ARG	2.3
38	2g	41	ARG	2.3
39	1h	84	ARG	2.3
39	2h	23	SER	2.3
33	2b	38	GLY	2.3
40	1i	9	ARG	2.3
40	2i	10	ARG	2.3
41	1j	10	GLY	2.3
53	2y	83	ARG	2.3
1	2A	614(A)	U	2.3
7	2H	151	ILE	2.3
14	2S	80	LEU	2.3
26	24	5	ILE	2.3
33	1b	41	ILE	2.3
33	2b	138	LEU	2.3
39	1h	133	LEU	2.3
40	1i	47	LEU	2.3
50	2s	5	LEU	2.3
1	1A	889	C	2.3

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Mol	Chain	Res	Type	RSRZ
1	1A	2136	C	2.3
34	2c	135	LYS	2.3
34	1c	207	VAL	2.3
37	1f	63	TYR	2.3
44	2m	23	TYR	2.3
47	1p	2	VAL	2.3
8	1I	10	GLU	2.3
33	1b	59	GLU	2.3
41	1j	97	GLU	2.3
7	2H	102	ALA	2.3
33	1b	34	ALA	2.3
36	2e	17	ALA	2.3
40	2i	98	PRO	2.3
41	1j	39	PRO	2.3
44	2m	113	PRO	2.3
52	1u	23	PRO	2.3
1	1A	2110	G	2.3
1	1A	2141	G	2.3
32	1a	1003	G	2.3
53	1y	53	THR	2.3
50	1s	29	ARG	2.3
1	1A	1084	A	2.3
11	2P	109	GLY	2.3
33	2b	233	SER	2.3
34	2c	167	TRP	2.3
35	1d	173	TRP	2.3
34	1c	107	GLN	2.3
39	1h	128	GLY	2.3
6	1G	77	ILE	2.3
6	2G	107	LEU	2.3
21	2Z	163	LEU	2.3
39	1h	112	LEU	2.3
1	1A	2132	U	2.3
6	2G	75	LYS	2.3
12	2Q	22	LYS	2.3
32	1a	1028	C	2.3
32	2a	1028	C	2.3
33	1b	22	LYS	2.3
43	2l	13	LYS	2.3
6	2G	141	PHE	2.3
10	1O	108	GLU	2.3
33	1b	49	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
6	2G	131	TYR	2.3
36	1e	51	VAL	2.3
36	2e	60	TYR	2.3
38	2g	141	VAL	2.3
44	1m	60	VAL	2.3
44	1m	117	VAL	2.3
45	2n	34	TYR	2.3
53	1y	71	TYR	2.3
8	1I	8	PRO	2.3
45	2n	10	ALA	2.3
7	2H	3	ARG	2.3
7	2H	59	ARG	2.3
34	2c	190	ARG	2.3
35	1d	3	ARG	2.3
41	1j	87	THR	2.3
51	2t	102	GLY	2.3
1	1A	2807	G	2.3
1	2A	2893	G	2.3
7	2H	64	LEU	2.3
8	2I	9	LEU	2.3
1	2A	887	A	2.3
1	2A	1088	A	2.3
6	2G	88	ILE	2.3
19	2X	80	ILE	2.3
32	2a	1026	G	2.3
41	1j	75	ILE	2.3
46	2o	67	LEU	2.3
32	2a	983	A	2.3
44	2m	82	MET	2.3
23	2l	81	LYS	2.3
40	2i	118	LYS	2.3
52	2u	20	LYS	2.3
1	2A	9	U	2.3
1	2A	271(K)	U	2.3
26	24	42	PHE	2.3
7	2H	52	VAL	2.3
24	22	19	VAL	2.3
39	2h	19	VAL	2.3
44	1m	98	VAL	2.3
47	1p	79	VAL	2.3
48	1q	85	VAL	2.3
7	2H	170	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
36	2e	65	ASN	2.2
37	1f	3	ARG	2.3
43	2l	5	PRO	2.3
20	2Y	35	TYR	2.3
42	1k	25	TYR	2.3
46	2o	68	ARG	2.3
48	2q	70	ARG	2.3
35	2d	164	ALA	2.2
36	2e	86	ALA	2.2
41	1j	27	ALA	2.2
44	2m	43	THR	2.2
22	20	28	GLY	2.2
39	2h	90	GLY	2.2
42	2k	90	GLY	2.2
45	2n	49	HIS	2.2
52	2u	16	GLY	2.2
7	2H	121	ILE	2.2
19	1X	66	LEU	2.2
30	28	50	LEU	2.2
33	1b	214	ILE	2.2
33	2b	133	LYS	2.2
34	1c	52	LEU	2.2
34	1c	87	LEU	2.2
41	2j	22	LYS	2.2
43	1l	91	LYS	2.2
43	2l	10	LEU	2.2
50	2s	38	SER	2.2
53	2y	81	LEU	2.2
1	1A	1508	A	2.2
1	1A	2114	A	2.2
32	1a	1492	A	2.2
1	1A	2162	G	2.2
1	2A	1087	G	2.2
32	1a	1002	G	2.2
1	2A	1097	U	2.2
1	2A	2132	U	2.2
32	1a	841	U	2.2
32	2a	1205	U	2.2
6	2G	102	PHE	2.2
36	2e	6	PHE	2.2
41	1j	54	PHE	2.2
1	2A	645	C	2.2

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Mol	Chain	Res	Type	RSRZ
1	2A	1041	C	2.2
1	2A	1104	C	2.2
7	2H	79	VAL	2.2
8	1I	136	VAL	2.2
11	2P	101	VAL	2.2
18	2W	50	VAL	2.2
21	1Z	131	ARG	2.2
21	2Z	100	VAL	2.2
33	1b	229	VAL	2.2
34	2c	153	VAL	2.2
39	2h	118	VAL	2.2
40	2i	9	ARG	2.2
41	2j	39	PRO	2.2
44	1m	113	PRO	2.2
44	2m	88	ARG	2.2
48	1q	91	ARG	2.2
52	2u	7	ARG	2.2
32	2a	999	C	2.2
32	2a	1109	C	2.2
6	2G	50	ALA	2.2
8	1I	63	ALA	2.2
8	2I	55	ALA	2.2
33	2b	34	ALA	2.2
34	2c	168	ALA	2.2
35	2d	32	ALA	2.2
38	1g	40	ALA	2.2
40	2i	15	ALA	2.2
40	2i	52	ALA	2.2
40	2i	76	ALA	2.2
41	1j	32	ALA	2.2
50	2s	65	ASN	2.2
22	20	78	TYR	2.2
34	2c	48	TYR	2.2
26	24	27	THR	2.2
47	1p	22	THR	2.2
30	28	38	GLY	2.2
34	2c	9	GLY	2.2
44	2m	6	GLY	2.2
50	1s	26	GLY	2.2
8	1I	128	LEU	2.2
33	1b	196	LEU	2.2
41	2j	85	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
8	2I	79	ILE	2.2
41	2j	96	ILE	2.2
1	1A	2629	A	2.2
32	1a	197	A	2.2
32	1a	1005	A	2.2
32	2a	1005	A	2.2
33	2b	126	GLU	2.2
34	1c	90	GLU	2.2
40	2i	2	GLU	2.2
1	1A	2113	U	2.2
1	2A	2160	G	2.2
32	2a	1182	G	2.2
32	2a	1215	G	2.2
34	1c	79	ARG	2.2
38	1g	5	ARG	2.2
10	2O	62	VAL	2.2
44	2m	15	VAL	2.2
50	2s	59	PRO	2.2
1	1A	2177	C	2.2
1	2A	885	C	2.2
1	2A	2183	C	2.2
14	2S	79	ALA	2.2
32	2a	1019	C	2.2
33	2b	225	ALA	2.2
38	2g	37	ASN	2.2
40	2i	55	ALA	2.2
41	2j	69	ASN	2.2
44	1m	51	ALA	2.2
51	1t	26	ASN	2.2
51	1t	97	ALA	2.2
6	1G	81	LYS	2.2
50	1s	61	TYR	2.2
52	2u	12	LYS	2.2
8	1I	38	LEU	2.2
14	2S	78	LEU	2.2
33	2b	149	LEU	2.2
34	2c	41	GLY	2.2
34	2c	175	LEU	2.2
40	1i	50	LEU	2.2
44	1m	24	GLY	2.2
51	1t	47	GLY	2.2
7	2H	89	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
33	2b	39	ILE	2.2
50	2s	62	ILE	2.2
26	24	65	ASP	2.2
33	1b	20	GLU	2.2
34	2c	90	GLU	2.2
35	2d	156	GLU	2.2
44	2m	3	ARG	2.2
1	1A	229	A	2.2
1	1A	2144	U	2.2
1	1A	2801(A)	A	2.2
32	2a	1020	U	2.2
33	2b	17	PHE	2.2
33	2b	122	PHE	2.2
40	2i	21	PRO	2.2
8	2I	37	VAL	2.2
21	2Z	58	VAL	2.2
44	2m	54	VAL	2.2
32	1a	1021	G	2.2
32	2a	1021	G	2.2
33	1b	207	ALA	2.2
38	2g	150	ALA	2.2
40	2i	46	ALA	2.2
51	1t	12	ALA	2.2
51	1t	30	LYS	2.2
51	2t	74	LYS	2.2
1	1A	34	C	2.2
1	2A	1072	C	2.2
1	2A	2163	C	2.2
6	1G	43	LEU	2.2
7	2H	103	LEU	2.2
32	2a	1027	C	2.2
34	1c	42	LEU	2.2
36	2e	43	LEU	2.2
36	2e	85	GLY	2.2
39	2h	112	LEU	2.2
40	1i	5	TYR	2.2
44	1m	63	THR	2.2
45	2n	22	THR	2.2
47	2p	10	GLY	2.2
51	1t	99	LEU	2.2
53	2y	41	LEU	2.2
46	2o	3	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
33	2b	192	SER	2.2
8	2I	10	GLU	2.2
37	2f	95	GLU	2.2
8	1I	134	PRO	2.2
38	2g	93	PRO	2.2
47	1p	46	PRO	2.2
47	1p	59	TRP	2.2
1	2A	1048	A	2.1
1	2A	1077	A	2.1
1	2A	1509(A)	A	2.1
2	1B	1	U	2.2
3	1D	38	LYS	2.2
11	2P	76	LYS	2.2
35	1d	110	PHE	2.2
45	1n	37	PHE	2.2
7	2H	115	VAL	2.1
25	23	59	VAL	2.1
26	24	33	VAL	2.1
32	1a	196	A	2.1
32	1a	1004	A	2.1
32	1a	1286	A	2.1
33	2b	184	VAL	2.1
34	2c	173	VAL	2.1
37	1f	88	VAL	2.1
47	1p	53	VAL	2.1
12	2Q	103	MET	2.1
21	2Z	7	ALA	2.1
26	24	47	GLN	2.1
35	1d	181	MET	2.1
39	2h	28	ALA	2.1
49	1r	24	ALA	2.1
51	1t	75	ASN	2.1
53	2y	79	ASN	2.1
53	2y	94	ALA	2.1
1	1A	2802	G	2.1
1	2A	11	G	2.1
1	2A	171	G	2.1
5	2F	181	LEU	2.1
17	1V	54	GLY	2.1
33	2b	227	GLY	2.1
34	2c	205	GLY	2.1
41	1j	31	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
43	1l	14	GLY	2.1
44	2m	34	LEU	2.1
8	1I	130	TYR	2.1
34	2c	134	ILE	2.1
40	1i	62	TYR	2.1
43	1l	120	TYR	2.1
47	1p	39	TYR	2.1
50	2s	49	ILE	2.1
32	2a	1007	C	2.1
32	2a	1128	C	2.1
14	1S	17	ARG	2.1
21	1Z	203	GLU	2.1
34	2c	11	ARG	2.1
44	2m	58	GLU	2.1
45	2n	35	ARG	2.1
35	2d	84	LYS	2.1
40	1i	11	LYS	2.1
33	1b	28	PHE	2.1
35	1d	105	VAL	2.1
37	2f	6	VAL	2.1
39	1h	103	VAL	2.1
40	2i	86	VAL	2.1
1	2A	2808	U	2.1
21	2Z	98	MET	2.1
32	2a	1219	U	2.1
1	1A	2892	A	2.1
1	2A	896	A	2.1
4	2E	204	ALA	2.1
6	2G	158	ALA	2.1
32	1a	1493	A	2.1
34	2c	162	GLN	2.1
42	1k	60	ALA	2.1
51	1t	77	ALA	2.1
33	2b	94	ASN	2.1
34	1c	63	ASN	2.1
40	2i	29	ASN	2.1
6	2G	85	GLY	2.1
23	2l	84	GLY	2.1
33	2b	73	THR	2.1
40	1i	85	LEU	2.1
41	1j	65	LEU	2.1
48	1q	80	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
48	1q	98	LEU	2.1
5	2F	28	ILE	2.1
26	14	22	ILE	2.1
38	1g	120	ILE	2.1
43	2l	7	ILE	2.1
48	1q	65	ILE	2.1
3	2D	262	ARG	2.1
12	2Q	32	TYR	2.1
33	1b	33	TYR	2.1
41	2j	70	ARG	2.1
1	1A	1059	G	2.1
1	1A	2157	G	2.1
1	2A	100	G	2.1
1	2A	1093	G	2.1
32	1a	380	G	2.1
32	2a	631	G	2.1
32	2a	1011	G	2.1
1	1A	2137	C	2.1
6	2G	126	ASP	2.1
8	1I	42	SER	2.1
32	1a	1039	C	2.1
32	2a	840	C	2.1
32	2a	1218	C	2.1
43	1l	47	LYS	2.1
50	1s	28	LYS	2.1
20	2Y	53	PRO	2.1
26	24	41	PRO	2.1
53	1y	45	PRO	2.1
21	2Z	136	PHE	2.1
49	1r	43	PHE	2.1
27	15	60	VAL	2.1
33	1b	230	VAL	2.1
35	1d	170	VAL	2.1
35	2d	74	GLN	2.1
39	1h	93	VAL	2.1
40	2i	44	VAL	2.1
32	2a	950	U	2.1
33	1b	13	ALA	2.1
33	1b	120	ALA	2.1
33	2b	177	ALA	2.1
34	2c	50	ALA	2.1
45	1n	30	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
47	2p	70	ALA	2.1
35	2d	154	ASN	2.1
41	1j	76	ASN	2.1
1	2A	655	A	2.1
1	2A	1103	A	2.1
1	2A	2114	A	2.1
6	2G	42	GLY	2.1
6	2G	60	LEU	2.1
11	2P	6	LEU	2.1
32	1a	1183	A	2.1
15	2T	69	GLY	2.1
22	20	8	GLY	2.1
26	14	64	GLY	2.1
38	2g	12	LEU	2.1
47	2p	60	LEU	2.1
40	2i	64	THR	2.1
52	2u	17	THR	2.1
13	2R	68	ARG	2.1
25	23	30	ARG	2.1
33	2b	30	ARG	2.1
35	2d	3	ARG	2.1
40	1i	107	ARG	2.1
40	2i	16	ARG	2.1
44	1m	102	ARG	2.1
8	2I	85	GLU	2.1
17	2V	99	ILE	2.1
20	2Y	61	ILE	2.1
26	24	15	ILE	2.1
45	2n	42	ILE	2.1
46	1o	87	ILE	2.1
48	1q	36	ILE	2.1
38	1g	85	TYR	2.1
39	2h	65	TYR	2.1
47	1p	17	TYR	2.1
6	2G	67	LYS	2.1
35	1d	102	ASP	2.1
43	2l	28	LYS	2.1
33	1b	124	SER	2.1
1	1A	2106	G	2.1
1	1A	2893	G	2.1
1	2A	1170	G	2.1
1	2A	2186	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	2A	2319	G	2.1
32	2a	1009	G	2.1
32	2a	1124	G	2.1
32	2a	1271	G	2.1
1	1A	886	C	2.1
1	1A	2175	C	2.1
1	2A	2794	C	2.1
6	2G	122	PRO	2.1
21	2Z	15	PRO	2.1
32	2a	1039	C	2.1
47	1p	66	PRO	2.1
53	2y	14	PRO	2.1
41	2j	56	HIS	2.1
6	2G	149	VAL	2.1
14	2S	98	VAL	2.1
35	1d	112	VAL	2.1
50	2s	19	VAL	2.1
53	2y	62	VAL	2.1
14	2S	55	ALA	2.1
33	1b	123	ALA	2.1
33	1b	218	ALA	2.1
33	2b	207	ALA	2.1
41	2j	20	ALA	2.1
1	1A	1026	U	2.1
6	2G	82	LEU	2.1
8	1I	58	LEU	2.1
8	2I	140	LEU	2.1
6	2G	24	GLY	2.1
12	1Q	5	ARG	2.1
12	2Q	133	ARG	2.1
19	2X	66	LEU	2.1
34	1c	178	LEU	2.1
40	2i	47	LEU	2.1
36	2e	22	GLY	2.1
40	2i	66	ARG	2.1
40	2i	69	GLY	2.1
41	1j	66	ARG	2.1
41	2j	40	LEU	2.1
22	10	8	GLY	2.1
44	2m	99	ARG	2.1
51	2t	96	GLY	2.1
8	2I	76	THR	2.1

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Mol	Chain	Res	Type	RSRZ
1	1A	652(A)	A	2.1
3	2D	106	ILE	2.1
20	2Y	44	ILE	2.1
33	1b	58	ILE	2.1
33	2b	108	ILE	2.1
41	2j	98	ILE	2.1
12	1Q	130	LYS	2.1
12	2Q	26	TYR	2.1
26	14	32	TYR	2.1
33	2b	33	TYR	2.1
42	1k	36	ASP	2.1
42	1k	75	TYR	2.1
42	2k	36	ASP	2.1
35	2d	39	PRO	2.1
50	2s	66	MET	2.1
1	1A	2128	C	2.1
1	2A	2182	G	2.0
32	1a	221	C	2.1
32	2a	1047	G	2.0
3	2D	117	VAL	2.0
21	2Z	44	PHE	2.0
21	2Z	86	VAL	2.0
24	22	25	VAL	2.0
35	2d	75	PHE	2.0
38	2g	62	PHE	2.0
41	1j	24	VAL	2.0
47	1p	80	PHE	2.0
14	2S	77	ALA	2.0
21	2Z	164	ALA	2.0
23	21	26	ARG	2.0
33	1b	23	ARG	2.0
34	1c	61	ALA	2.0
34	2c	137	ALA	2.0
42	2k	15	ALA	2.0
51	1t	83	ARG	2.0
6	2G	7	LEU	2.0
7	2H	88	LEU	2.0
21	2Z	157	LEU	2.0
35	2d	21	LEU	2.0
38	1g	16	LEU	2.0
38	2g	38	LEU	2.0
44	2m	96	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
26	24	64	GLY	2.0
34	2c	145	GLY	2.0
40	1i	2	GLU	2.0
43	2l	88	GLY	2.0
44	2m	64	TRP	2.0
48	2q	8	GLY	2.0
1	1A	1105	U	2.0
1	2A	1090	U	2.0
6	2G	145	THR	2.0
7	2H	175	LYS	2.0
32	2a	1049	U	2.0
21	2Z	53	ILE	2.0
26	14	69	LYS	2.0
33	1b	211	ILE	2.0
34	2c	39	ILE	2.0
38	2g	42	ILE	2.0
42	2k	124	LYS	2.0
52	1u	8	THR	2.0
1	1A	2134	A	2.0
1	1A	2158	A	2.0
32	2a	974	A	2.0
32	2a	1183	A	2.0
26	24	32	TYR	2.0
26	24	51	ASP	2.0
33	1b	206	ASP	2.0
38	1g	154	TYR	2.0
39	2h	48	TYR	2.0
33	2b	235	SER	2.0
38	2g	125	MET	2.0
35	1d	125	HIS	2.0
40	1i	117	HIS	2.0
41	1j	68	HIS	2.0
50	2s	57	HIS	2.0
6	2G	138	GLN	2.0
26	14	18	CYS	2.0
38	2g	13	GLN	2.0
1	1A	2179	C	2.0
1	2A	34	C	2.0
6	2G	51	ARG	2.0
14	2S	12	PHE	2.0
23	21	70	VAL	2.0
32	1a	1018	C	2.0

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Mol	Chain	Res	Type	RSRZ
32	1a	1533	C	2.0
32	2a	1203	C	2.0
35	1d	17	VAL	2.0
36	2e	45	PHE	2.0
38	1g	26	PHE	2.0
40	1i	109	VAL	2.0
44	2m	104	ARG	2.0
52	1u	15	ARG	2.0
1	1A	171	G	2.0
1	2A	10	G	2.0
1	2A	2115	G	2.0
1	2A	2187	G	2.0
32	1a	384	G	2.0
32	2a	971	G	2.0
32	2a	1022	G	2.0
3	2D	37	LEU	2.0
6	2G	175	LEU	2.0
7	2H	98	LEU	2.0
25	23	31	LEU	2.0
33	2b	218	ALA	2.0
38	2g	40	ALA	2.0
38	2g	128	ALA	2.0
50	2s	75	ALA	2.0
51	1t	62	LEU	2.0
12	1Q	33	GLY	2.0
35	2d	23	GLY	2.0
36	2e	130	ASN	2.0
44	2m	26	GLY	2.0
45	2n	17	LYS	2.0
50	1s	84	GLY	2.0
33	2b	32	ILE	2.0
35	2d	146	ILE	2.0
38	1g	42	ILE	2.0
41	1j	82	ILE	2.0
47	1p	36	ILE	2.0
50	2s	40	ILE	2.0
32	1a	1020	U	2.0
32	2a	1196	U	2.0
1	2A	1045	A	2.0
1	2A	1050	A	2.0
1	2A	2158	A	2.0
8	1I	20	ASP	2.0

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Mol	Chain	Res	Type	RSRZ
32	2a	1157	A	2.0
37	1f	83	ASP	2.0
53	2y	3	MET	2.0
14	2S	7	TYR	2.0
48	2q	99	SER	2.0
52	2u	18	TYR	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
1	5MU	1A	1915	21/22	0.84	0.14	71,78,84,93	0
1	5MU	2A	1915	21/22	0.87	0.12	75,84,90,98	0
32	M2G	2a	966	25/26	0.87	0.17	61,71,84,86	0
32	2MG	2a	1207	24/25	0.87	0.13	84,88,92,94	0
1	PSU	2A	1917	20/21	0.88	0.10	79,83,89,94	0
43	0TD	2l	92	10/11	0.88	0.13	65,71,73,88	0
1	PSU	2A	1911	20/21	0.89	0.09	69,75,90,93	0
32	5MC	2a	967	21/22	0.90	0.15	70,75,82,86	0
1	OMC	2A	1920	21/22	0.91	0.09	68,72,75,80	0
32	4OC	2a	1402	22/23	0.91	0.13	58,67,73,75	0
32	PSU	2a	516	20/21	0.91	0.09	77,81,87,92	0
1	PSU	1A	1911	20/21	0.92	0.10	51,71,76,78	0
1	PSU	1A	1917	20/21	0.93	0.11	61,71,79,79	0
32	G7M	1a	527	24/25	0.93	0.12	50,60,64,65	0
32	5MC	1a	967	21/22	0.93	0.12	67,74,81,82	0
32	2MG	1a	1207	24/25	0.93	0.09	73,79,81,86	0
43	0TD	1l	92	10/11	0.93	0.12	51,62,67,73	0
32	5MC	2a	1400	21/22	0.94	0.13	70,74,78,80	0
32	G7M	2a	527	24/25	0.94	0.10	64,71,76,79	0
32	5MC	2a	1404	21/22	0.94	0.11	58,63,65,66	0
32	5MC	2a	1407	21/22	0.94	0.11	62,67,70,77	0
32	UR3	1a	1498	21/22	0.94	0.12	49,56,60,66	0
32	MA6	1a	1519	24/25	0.95	0.11	48,54,60,65	0
1	5MC	2A	1942	21/22	0.95	0.09	47,57,61,64	0
32	PSU	1a	516	20/21	0.95	0.08	63,66,72,76	0
1	OMC	1A	1920	21/22	0.95	0.12	52,60,67,69	0
32	5MC	1a	1407	21/22	0.95	0.11	49,58,61,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	UR3	2a	1498	21/22	0.95	0.11	64,67,71,74	0
32	MA6	2a	1518	24/25	0.95	0.11	60,69,73,74	0
32	M2G	1a	966	25/26	0.95	0.12	64,68,75,82	0
32	5MC	1a	1404	21/22	0.96	0.09	51,56,60,62	0
32	MA6	2a	1519	24/25	0.96	0.12	57,67,71,74	0
1	OMU	2A	2552	21/22	0.96	0.10	39,44,49,53	0
1	5MC	1A	1942	21/22	0.97	0.07	34,40,42,51	0
1	5MC	1A	1962	21/22	0.97	0.07	29,38,44,49	0
32	MA6	1a	1518	24/25	0.97	0.10	49,53,57,59	0
1	5MU	2A	1939	21/22	0.97	0.08	36,40,46,48	0
32	5MC	1a	1400	21/22	0.97	0.10	55,60,66,69	0
1	5MC	2A	1962	21/22	0.97	0.08	43,50,58,64	0
1	MA6	2A	2058	24/25	0.97	0.10	34,41,49,52	0
1	OMG	2A	2251	24/25	0.97	0.09	40,44,47,47	0
1	2MA	2A	2503	23/24	0.97	0.09	34,38,43,46	0
32	4OC	1a	1402	22/23	0.97	0.08	51,58,66,79	0
1	PSU	2A	2605	20/21	0.97	0.08	35,44,50,51	0
1	PSU	1A	2605	20/21	0.97	0.08	27,33,38,41	0
1	OMU	1A	2552	21/22	0.98	0.07	31,35,38,43	0
1	5MU	1A	1939	21/22	0.98	0.06	27,32,36,38	0
1	MA6	1A	2058	24/25	0.98	0.07	20,28,38,43	0
1	OMG	1A	2251	24/25	0.98	0.06	22,29,32,34	0
1	2MA	1A	2503	23/24	0.99	0.06	21,29,32,33	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3039	1/1	0.55	0.14	94,94,94,94	0
54	MG	1a	1683	1/1	0.56	0.37	83,83,83,83	0
54	MG	2A	3443	1/1	0.60	0.20	79,79,79,79	0
54	MG	2A	3566	1/1	0.61	0.25	86,86,86,86	0
54	MG	2A	3276	1/1	0.63	0.23	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3355	1/1	0.64	0.22	70,70,70,70	0
54	MG	2A	3569	1/1	0.65	0.14	78,78,78,78	0
54	MG	1a	1802	1/1	0.65	0.17	84,84,84,84	0
54	MG	1a	1785	1/1	0.67	0.32	79,79,79,79	0
54	MG	1A	3429	1/1	0.68	0.18	75,75,75,75	0
54	MG	2A	3400	1/1	0.68	0.24	72,72,72,72	0
54	MG	2A	3215	1/1	0.68	0.24	77,77,77,77	0
54	MG	1A	3190	1/1	0.70	0.24	84,84,84,84	0
54	MG	2A	3399	1/1	0.71	0.18	69,69,69,69	0
54	MG	1A	3712	1/1	0.71	0.22	60,60,60,60	0
54	MG	2a	3022	1/1	0.71	0.31	73,73,73,73	0
54	MG	2a	3027	1/1	0.71	0.50	76,76,76,76	0
54	MG	1A	3653	1/1	0.71	0.21	77,77,77,77	0
54	MG	1A	3895	1/1	0.72	0.22	58,58,58,58	0
54	MG	1a	1820	1/1	0.72	0.18	72,72,72,72	0
54	MG	2A	3475	1/1	0.73	0.14	83,83,83,83	0
54	MG	1A	3080	1/1	0.73	0.30	70,70,70,70	0
54	MG	2A	3375	1/1	0.73	0.20	68,68,68,68	0
54	MG	1a	1696	1/1	0.73	0.31	80,80,80,80	0
54	MG	2A	3078	1/1	0.73	0.16	69,69,69,69	0
54	MG	1A	3701	1/1	0.73	0.16	68,68,68,68	0
54	MG	2a	3064	1/1	0.73	0.29	83,83,83,83	0
54	MG	1A	3680	1/1	0.74	0.16	63,63,63,63	0
54	MG	1a	1684	1/1	0.74	0.14	81,81,81,81	0
54	MG	1A	3397	1/1	0.74	0.14	57,57,57,57	0
54	MG	1A	4007	1/1	0.74	0.16	63,63,63,63	0
58	ARG	1F	318	12/12	0.74	0.20	60,69,76,80	0
54	MG	2A	3413	1/1	0.75	0.22	72,72,72,72	0
54	MG	2A	3659	1/1	0.75	0.17	84,84,84,84	0
54	MG	2A	3052	1/1	0.75	0.25	60,60,60,60	0
54	MG	2A	3461	1/1	0.75	0.18	76,76,76,76	0
54	MG	2A	3243	1/1	0.75	0.21	73,73,73,73	0
54	MG	2A	3523	1/1	0.75	0.19	60,60,60,60	0
54	MG	2a	3118	1/1	0.75	0.17	77,77,77,77	0
54	MG	1a	1880	1/1	0.75	0.15	74,74,74,74	0
54	MG	1A	3463	1/1	0.76	0.18	83,83,83,83	0
54	MG	1a	1789	1/1	0.76	0.21	84,84,84,84	0
54	MG	2A	3666	1/1	0.76	0.27	87,87,87,87	0
54	MG	2A	3422	1/1	0.76	0.15	79,79,79,79	0
54	MG	1A	3927	1/1	0.76	0.16	34,34,34,34	0
54	MG	1A	3544	1/1	0.76	0.17	50,50,50,50	0
54	MG	1a	1863	1/1	0.76	0.26	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1720	1/1	0.76	0.24	82,82,82,82	0
54	MG	2A	3049	1/1	0.76	0.27	74,74,74,74	0
54	MG	1a	1771	1/1	0.77	0.15	74,74,74,74	0
54	MG	1A	3896	1/1	0.77	0.21	62,62,62,62	0
54	MG	2Q	203	1/1	0.77	0.28	64,64,64,64	0
54	MG	2A	3233	1/1	0.77	0.15	62,62,62,62	0
54	MG	1a	1874	1/1	0.77	0.26	76,76,76,76	0
54	MG	1a	1707	1/1	0.77	0.30	75,75,75,75	0
54	MG	1f	201	1/1	0.77	0.20	80,80,80,80	0
54	MG	1D	313	1/1	0.77	0.23	74,74,74,74	0
54	MG	2a	3187	1/1	0.77	0.16	73,73,73,73	0
54	MG	1a	1818	1/1	0.77	0.25	80,80,80,80	0
54	MG	1A	3450	1/1	0.78	0.15	56,56,56,56	0
54	MG	1a	1637	1/1	0.78	0.19	71,71,71,71	0
54	MG	2B	205	1/1	0.78	0.20	77,77,77,77	0
54	MG	2B	208	1/1	0.78	0.14	88,88,88,88	0
54	MG	1a	1638	1/1	0.78	0.32	71,71,71,71	0
54	MG	1h	201	1/1	0.78	0.29	66,66,66,66	0
54	MG	2A	3320	1/1	0.78	0.25	76,76,76,76	0
54	MG	2A	3501	1/1	0.78	0.18	61,61,61,61	0
54	MG	1a	1821	1/1	0.78	0.24	72,72,72,72	0
54	MG	2a	3072	1/1	0.78	0.21	77,77,77,77	0
54	MG	1a	1854	1/1	0.78	0.14	67,67,67,67	0
54	MG	1a	1668	1/1	0.78	0.18	79,79,79,79	0
54	MG	2A	3570	1/1	0.78	0.25	76,76,76,76	0
54	MG	1a	1823	1/1	0.79	0.19	86,86,86,86	0
54	MG	2a	3002	1/1	0.79	0.17	69,69,69,69	0
54	MG	1A	3422	1/1	0.79	0.17	55,55,55,55	0
54	MG	2A	3203	1/1	0.79	0.21	67,67,67,67	0
54	MG	2A	3648	1/1	0.79	0.17	70,70,70,70	0
54	MG	2a	3040	1/1	0.79	0.21	71,71,71,71	0
54	MG	2a	3046	1/1	0.79	0.20	81,81,81,81	0
54	MG	2A	3466	1/1	0.79	0.18	61,61,61,61	0
54	MG	1g	202	1/1	0.79	0.18	69,69,69,69	0
54	MG	1a	1767	1/1	0.79	0.22	80,80,80,80	0
54	MG	2a	3169	1/1	0.79	0.19	86,86,86,86	0
54	MG	1A	3872	1/1	0.79	0.14	67,67,67,67	0
54	MG	2G	201	1/1	0.79	0.16	81,81,81,81	0
54	MG	1A	3998	1/1	0.80	0.25	52,52,52,52	0
54	MG	1A	3495	1/1	0.80	0.12	34,34,34,34	0
54	MG	2A	3481	1/1	0.80	0.19	74,74,74,74	0
54	MG	1A	3454	1/1	0.80	0.26	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3025	1/1	0.80	0.25	83,83,83,83	0
54	MG	2A	3299	1/1	0.80	0.15	80,80,80,80	0
54	MG	1A	3763	1/1	0.80	0.30	67,67,67,67	0
54	MG	1A	3596	1/1	0.80	0.17	66,66,66,66	0
54	MG	1A	3628	1/1	0.80	0.25	68,68,68,68	0
54	MG	2a	3062	1/1	0.80	0.34	84,84,84,84	0
54	MG	1A	3211	1/1	0.80	0.12	57,57,57,57	0
54	MG	1A	3897	1/1	0.80	0.17	58,58,58,58	0
54	MG	2a	3078	1/1	0.80	0.33	68,68,68,68	0
54	MG	1A	3465	1/1	0.80	0.10	43,43,43,43	0
54	MG	1a	1700	1/1	0.80	0.31	78,78,78,78	0
54	MG	1A	3979	1/1	0.80	0.28	57,57,57,57	0
54	MG	2E	305	1/1	0.80	0.28	76,76,76,76	0
54	MG	15	106	1/1	0.81	0.15	48,48,48,48	0
54	MG	1A	3788	1/1	0.81	0.13	34,34,34,34	0
54	MG	2A	3349	1/1	0.81	0.20	80,80,80,80	0
54	MG	1A	3985	1/1	0.81	0.17	65,65,65,65	0
54	MG	1a	1663	1/1	0.81	0.19	66,66,66,66	0
54	MG	1A	3993	1/1	0.81	0.14	71,71,71,71	0
54	MG	2A	3409	1/1	0.81	0.16	79,79,79,79	0
54	MG	1l	202	1/1	0.81	0.20	78,78,78,78	0
54	MG	1a	1815	1/1	0.81	0.18	79,79,79,79	0
54	MG	1a	1817	1/1	0.81	0.21	84,84,84,84	0
54	MG	1A	3590	1/1	0.81	0.16	51,51,51,51	0
54	MG	2A	3080	1/1	0.81	0.28	79,79,79,79	0
54	MG	2A	3136	1/1	0.81	0.27	72,72,72,72	0
54	MG	1A	4000	1/1	0.81	0.11	82,82,82,82	0
54	MG	1A	3570	1/1	0.81	0.16	59,59,59,59	0
54	MG	2A	3506	1/1	0.81	0.17	64,64,64,64	0
54	MG	2a	3068	1/1	0.81	0.25	81,81,81,81	0
54	MG	2A	3216	1/1	0.81	0.29	61,61,61,61	0
54	MG	2A	3218	1/1	0.81	0.20	63,63,63,63	0
54	MG	1B	227	1/1	0.81	0.14	76,76,76,76	0
54	MG	2a	3162	1/1	0.81	0.24	69,69,69,69	0
54	MG	1A	3933	1/1	0.81	0.17	60,60,60,60	0
54	MG	2A	3594	1/1	0.81	0.15	85,85,85,85	0
54	MG	1l	102	1/1	0.81	0.27	56,56,56,56	0
54	MG	1A	3850	1/1	0.82	0.15	64,64,64,64	0
54	MG	1A	3742	1/1	0.82	0.18	60,60,60,60	0
54	MG	1A	3892	1/1	0.82	0.10	41,41,41,41	0
54	MG	1a	1735	1/1	0.82	0.20	68,68,68,68	0
54	MG	1A	3968	1/1	0.82	0.18	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1833	1/1	0.82	0.22	63,63,63,63	0
54	MG	2A	3148	1/1	0.82	0.25	73,73,73,73	0
54	MG	2A	3612	1/1	0.82	0.15	80,80,80,80	0
54	MG	1B	209	1/1	0.82	0.34	71,71,71,71	0
54	MG	1a	1778	1/1	0.82	0.19	86,86,86,86	0
54	MG	1B	225	1/1	0.82	0.14	74,74,74,74	0
54	MG	2A	3459	1/1	0.82	0.26	72,72,72,72	0
54	MG	1A	3584	1/1	0.82	0.18	45,45,45,45	0
54	MG	2a	3133	1/1	0.82	0.18	79,79,79,79	0
54	MG	1A	3481	1/1	0.82	0.14	68,68,68,68	0
54	MG	1a	1809	1/1	0.82	0.18	70,70,70,70	0
54	MG	2a	3180	1/1	0.82	0.17	92,92,92,92	0
54	MG	1P	204	1/1	0.82	0.20	52,52,52,52	0
54	MG	2j	201	1/1	0.82	0.10	86,86,86,86	0
54	MG	2T	203	1/1	0.82	0.20	77,77,77,77	0
54	MG	1A	3612	1/1	0.83	0.15	48,48,48,48	0
54	MG	1A	3620	1/1	0.83	0.12	71,71,71,71	0
54	MG	1a	1743	1/1	0.83	0.18	80,80,80,80	0
54	MG	1A	3531	1/1	0.83	0.13	58,58,58,58	0
54	MG	1A	3894	1/1	0.83	0.09	60,60,60,60	0
54	MG	1A	3338	1/1	0.83	0.30	70,70,70,70	0
54	MG	2A	3518	1/1	0.83	0.14	83,83,83,83	0
54	MG	1a	1640	1/1	0.83	0.22	72,72,72,72	0
54	MG	2A	3554	1/1	0.83	0.15	81,81,81,81	0
54	MG	2A	3558	1/1	0.83	0.14	80,80,80,80	0
54	MG	2A	3562	1/1	0.83	0.17	88,88,88,88	0
54	MG	1A	3781	1/1	0.83	0.10	46,46,46,46	0
54	MG	2A	3333	1/1	0.83	0.30	75,75,75,75	0
54	MG	1A	3435	1/1	0.83	0.20	79,79,79,79	0
54	MG	2A	3585	1/1	0.83	0.14	60,60,60,60	0
54	MG	2a	3107	1/1	0.83	0.22	71,71,71,71	0
54	MG	2A	3048	1/1	0.83	0.25	60,60,60,60	0
54	MG	2a	3129	1/1	0.83	0.23	72,72,72,72	0
54	MG	1a	1672	1/1	0.83	0.21	73,73,73,73	0
54	MG	1B	204	1/1	0.83	0.14	63,63,63,63	0
54	MG	2a	3166	1/1	0.83	0.14	90,90,90,90	0
54	MG	1A	3816	1/1	0.83	0.15	29,29,29,29	0
54	MG	1A	3842	1/1	0.83	0.16	70,70,70,70	0
54	MG	1A	3944	1/1	0.83	0.12	50,50,50,50	0
54	MG	2a	3189	1/1	0.83	0.39	78,78,78,78	0
54	MG	1A	3961	1/1	0.83	0.23	64,64,64,64	0
57	MPD	2A	3674	8/8	0.83	0.24	64,71,73,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1714	1/1	0.83	0.18	76,76,76,76	0
54	MG	2A	3318	1/1	0.84	0.13	44,44,44,44	0
54	MG	2A	3634	1/1	0.84	0.14	57,57,57,57	0
54	MG	1a	1836	1/1	0.84	0.12	80,80,80,80	0
54	MG	1a	1844	1/1	0.84	0.20	61,61,61,61	0
54	MG	1B	229	1/1	0.84	0.10	60,60,60,60	0
54	MG	2A	3670	1/1	0.84	0.17	73,73,73,73	0
54	MG	1A	3274	1/1	0.84	0.21	62,62,62,62	0
54	MG	1a	1716	1/1	0.84	0.11	54,54,54,54	0
54	MG	1A	3293	1/1	0.84	0.15	71,71,71,71	0
54	MG	1A	3725	1/1	0.84	0.21	56,56,56,56	0
54	MG	1A	3893	1/1	0.84	0.19	58,58,58,58	0
54	MG	2A	3416	1/1	0.84	0.14	73,73,73,73	0
54	MG	1a	1759	1/1	0.84	0.16	66,66,66,66	0
54	MG	2A	3425	1/1	0.84	0.14	70,70,70,70	0
54	MG	1a	1612	1/1	0.84	0.29	65,65,65,65	0
54	MG	1a	1631	1/1	0.84	0.14	62,62,62,62	0
54	MG	1a	1773	1/1	0.84	0.18	74,74,74,74	0
54	MG	2A	3462	1/1	0.84	0.12	86,86,86,86	0
54	MG	1A	3141	1/1	0.84	0.14	55,55,55,55	0
54	MG	2A	3063	1/1	0.84	0.12	52,52,52,52	0
54	MG	2A	3477	1/1	0.84	0.13	86,86,86,86	0
54	MG	1A	3448	1/1	0.84	0.13	36,36,36,36	0
54	MG	1A	3205	1/1	0.84	0.19	65,65,65,65	0
54	MG	2a	3074	1/1	0.84	0.24	70,70,70,70	0
54	MG	1a	1790	1/1	0.84	0.18	75,75,75,75	0
54	MG	1A	3166	1/1	0.84	0.14	66,66,66,66	0
54	MG	1A	4024	1/1	0.84	0.15	69,69,69,69	0
54	MG	2A	3543	1/1	0.84	0.12	70,70,70,70	0
54	MG	2A	3210	1/1	0.84	0.24	71,71,71,71	0
54	MG	1A	3403	1/1	0.84	0.10	33,33,33,33	0
54	MG	1a	1673	1/1	0.84	0.16	63,63,63,63	0
54	MG	1a	1675	1/1	0.84	0.26	66,66,66,66	0
54	MG	1B	205	1/1	0.84	0.10	64,64,64,64	0
54	MG	2a	3182	1/1	0.84	0.27	81,81,81,81	0
54	MG	1A	3691	1/1	0.84	0.12	65,65,65,65	0
54	MG	1A	3935	1/1	0.84	0.16	64,64,64,64	0
54	MG	2A	3589	1/1	0.84	0.17	73,73,73,73	0
54	MG	1A	3844	1/1	0.84	0.10	54,54,54,54	0
54	MG	2A	3607	1/1	0.84	0.12	65,65,65,65	0
54	MG	13	103	1/1	0.85	0.14	73,73,73,73	0
54	MG	2A	3665	1/1	0.85	0.24	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3402	1/1	0.85	0.13	62,62,62,62	0
54	MG	1a	1813	1/1	0.85	0.24	70,70,70,70	0
54	MG	1A	4001	1/1	0.85	0.21	80,80,80,80	0
54	MG	1A	3401	1/1	0.85	0.14	48,48,48,48	0
54	MG	2B	209	1/1	0.85	0.16	85,85,85,85	0
54	MG	2B	214	1/1	0.85	0.21	71,71,71,71	0
54	MG	2A	3102	1/1	0.85	0.17	59,59,59,59	0
54	MG	2A	3106	1/1	0.85	0.23	70,70,70,70	0
54	MG	2A	3126	1/1	0.85	0.22	66,66,66,66	0
54	MG	2A	3447	1/1	0.85	0.16	43,43,43,43	0
54	MG	1a	1613	1/1	0.85	0.24	68,68,68,68	0
54	MG	1a	1619	1/1	0.85	0.12	71,71,71,71	0
54	MG	2A	3184	1/1	0.85	0.14	61,61,61,61	0
54	MG	2A	3199	1/1	0.85	0.18	70,70,70,70	0
54	MG	2a	3034	1/1	0.85	0.31	72,72,72,72	0
54	MG	2a	3038	1/1	0.85	0.17	82,82,82,82	0
54	MG	1A	3693	1/1	0.85	0.09	69,69,69,69	0
54	MG	1a	1725	1/1	0.85	0.17	61,61,61,61	0
54	MG	1A	3388	1/1	0.85	0.15	65,65,65,65	0
54	MG	2a	3051	1/1	0.85	0.40	81,81,81,81	0
54	MG	2a	3054	1/1	0.85	0.28	68,68,68,68	0
54	MG	2a	3059	1/1	0.85	0.22	74,74,74,74	0
54	MG	1A	3547	1/1	0.85	0.17	55,55,55,55	0
54	MG	2A	3505	1/1	0.85	0.15	68,68,68,68	0
54	MG	2a	3067	1/1	0.85	0.14	78,78,78,78	0
54	MG	1A	3473	1/1	0.85	0.12	58,58,58,58	0
54	MG	1A	3390	1/1	0.85	0.11	50,50,50,50	0
54	MG	1A	3762	1/1	0.85	0.11	52,52,52,52	0
54	MG	1A	3654	1/1	0.85	0.25	72,72,72,72	0
54	MG	2A	3282	1/1	0.85	0.13	48,48,48,48	0
54	MG	1A	3772	1/1	0.85	0.17	53,53,53,53	0
54	MG	2a	3119	1/1	0.85	0.16	68,68,68,68	0
54	MG	1H	201	1/1	0.85	0.16	67,67,67,67	0
54	MG	1A	3661	1/1	0.85	0.16	64,64,64,64	0
54	MG	2a	3159	1/1	0.85	0.18	74,74,74,74	0
54	MG	2A	3329	1/1	0.85	0.12	76,76,76,76	0
54	MG	2A	3330	1/1	0.85	0.21	77,77,77,77	0
54	MG	1A	3170	1/1	0.85	0.18	62,62,62,62	0
54	MG	1a	1795	1/1	0.85	0.12	72,72,72,72	0
54	MG	2A	3358	1/1	0.85	0.20	67,67,67,67	0
54	MG	1a	1798	1/1	0.85	0.11	78,78,78,78	0
54	MG	2A	3391	1/1	0.85	0.14	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2e	201	1/1	0.85	0.22	76,76,76,76	0
54	MG	2h	201	1/1	0.85	0.14	74,74,74,74	0
54	MG	2A	3633	1/1	0.85	0.18	70,70,70,70	0
57	MPD	2A	3673	8/8	0.85	0.26	45,57,63,63	0
54	MG	2A	3393	1/1	0.85	0.13	72,72,72,72	0
54	MG	1a	1694	1/1	0.85	0.46	84,84,84,84	0
54	MG	2A	3660	1/1	0.86	0.21	75,75,75,75	0
54	MG	1a	1604	1/1	0.86	0.16	81,81,81,81	0
54	MG	1A	3452	1/1	0.86	0.21	63,63,63,63	0
54	MG	2A	3669	1/1	0.86	0.12	60,60,60,60	0
54	MG	1a	1865	1/1	0.86	0.28	69,69,69,69	0
54	MG	2A	3359	1/1	0.86	0.10	80,80,80,80	0
54	MG	2B	206	1/1	0.86	0.25	73,73,73,73	0
54	MG	2A	3363	1/1	0.86	0.17	75,75,75,75	0
54	MG	1a	1873	1/1	0.86	0.10	83,83,83,83	0
54	MG	1A	3804	1/1	0.86	0.09	78,78,78,78	0
54	MG	1A	3269	1/1	0.86	0.26	72,72,72,72	0
54	MG	1b	301	1/1	0.86	0.12	82,82,82,82	0
54	MG	1a	1758	1/1	0.86	0.12	70,70,70,70	0
54	MG	1a	1622	1/1	0.86	0.23	62,62,62,62	0
54	MG	1a	1761	1/1	0.86	0.15	77,77,77,77	0
54	MG	2a	3014	1/1	0.86	0.15	75,75,75,75	0
54	MG	1a	1766	1/1	0.86	0.15	75,75,75,75	0
54	MG	1o	101	1/1	0.86	0.24	74,74,74,74	0
54	MG	1A	3837	1/1	0.86	0.16	57,57,57,57	0
54	MG	1a	1632	1/1	0.86	0.17	60,60,60,60	0
54	MG	2A	3428	1/1	0.86	0.17	68,68,68,68	0
54	MG	2A	3441	1/1	0.86	0.13	65,65,65,65	0
54	MG	1B	202	1/1	0.86	0.21	67,67,67,67	0
54	MG	1A	3194	1/1	0.86	0.15	65,65,65,65	0
54	MG	2a	3047	1/1	0.86	0.22	74,74,74,74	0
54	MG	2A	3455	1/1	0.86	0.18	69,69,69,69	0
54	MG	1A	3553	1/1	0.86	0.17	49,49,49,49	0
54	MG	1a	1788	1/1	0.86	0.11	88,88,88,88	0
54	MG	1a	1644	1/1	0.86	0.15	70,70,70,70	0
54	MG	1a	1645	1/1	0.86	0.21	64,64,64,64	0
54	MG	2A	3111	1/1	0.86	0.24	60,60,60,60	0
54	MG	1A	3204	1/1	0.86	0.26	60,60,60,60	0
54	MG	1A	3861	1/1	0.86	0.11	63,63,63,63	0
54	MG	1A	3656	1/1	0.86	0.21	49,49,49,49	0
54	MG	1a	1806	1/1	0.86	0.13	72,72,72,72	0
54	MG	2a	3081	1/1	0.86	0.32	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3092	1/1	0.86	0.15	67,67,67,67	0
54	MG	1A	3969	1/1	0.86	0.16	66,66,66,66	0
54	MG	1A	3973	1/1	0.86	0.14	71,71,71,71	0
54	MG	1a	1814	1/1	0.86	0.15	65,65,65,65	0
54	MG	1F	314	1/1	0.86	0.26	75,75,75,75	0
54	MG	2a	3131	1/1	0.86	0.28	66,66,66,66	0
54	MG	1A	3978	1/1	0.86	0.24	60,60,60,60	0
54	MG	2a	3138	1/1	0.86	0.16	80,80,80,80	0
54	MG	2a	3149	1/1	0.86	0.13	80,80,80,80	0
54	MG	1A	3890	1/1	0.86	0.11	30,30,30,30	0
54	MG	1T	204	1/1	0.86	0.13	70,70,70,70	0
54	MG	1A	3395	1/1	0.86	0.12	45,45,45,45	0
54	MG	2A	3271	1/1	0.86	0.12	54,54,54,54	0
54	MG	1a	1702	1/1	0.86	0.25	78,78,78,78	0
54	MG	1a	1827	1/1	0.86	0.23	66,66,66,66	0
54	MG	2a	3185	1/1	0.86	0.17	69,69,69,69	0
54	MG	2A	3286	1/1	0.86	0.12	79,79,79,79	0
54	MG	1a	1830	1/1	0.86	0.24	74,74,74,74	0
54	MG	2A	3308	1/1	0.86	0.11	44,44,44,44	0
54	MG	1l	105	1/1	0.86	0.17	66,66,66,66	0
54	MG	1A	3322	1/1	0.86	0.25	69,69,69,69	0
54	MG	2n	101	1/1	0.86	0.15	78,78,78,78	0
54	MG	2A	3322	1/1	0.86	0.10	49,49,49,49	0
54	MG	1a	1837	1/1	0.86	0.17	83,83,83,83	0
54	MG	1A	3217	1/1	0.86	0.13	62,62,62,62	0
54	MG	1A	3607	1/1	0.87	0.17	68,68,68,68	0
54	MG	1A	3959	1/1	0.87	0.10	30,30,30,30	0
54	MG	2A	3662	1/1	0.87	0.17	62,62,62,62	0
54	MG	1a	1727	1/1	0.87	0.14	56,56,56,56	0
54	MG	1A	3609	1/1	0.87	0.12	37,37,37,37	0
54	MG	1a	1876	1/1	0.87	0.12	71,71,71,71	0
54	MG	1a	1737	1/1	0.87	0.16	91,91,91,91	0
54	MG	2A	3354	1/1	0.87	0.19	68,68,68,68	0
54	MG	1A	3610	1/1	0.87	0.11	65,65,65,65	0
54	MG	1e	203	1/1	0.87	0.16	73,73,73,73	0
54	MG	1a	1744	1/1	0.87	0.24	70,70,70,70	0
54	MG	2B	212	1/1	0.87	0.10	69,69,69,69	0
54	MG	2A	3371	1/1	0.87	0.25	71,71,71,71	0
54	MG	2D	305	1/1	0.87	0.14	72,72,72,72	0
54	MG	2E	302	1/1	0.87	0.12	42,42,42,42	0
54	MG	1A	3477	1/1	0.87	0.18	66,66,66,66	0
54	MG	1A	3803	1/1	0.87	0.14	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3243	1/1	0.87	0.08	74,74,74,74	0
54	MG	1A	3359	1/1	0.87	0.10	41,41,41,41	0
54	MG	2A	3006	1/1	0.87	0.12	57,57,57,57	0
54	MG	2a	3005	1/1	0.87	0.15	65,65,65,65	0
54	MG	2A	3037	1/1	0.87	0.29	83,83,83,83	0
54	MG	2A	3043	1/1	0.87	0.35	84,84,84,84	0
54	MG	2A	3410	1/1	0.87	0.10	67,67,67,67	0
54	MG	2A	3047	1/1	0.87	0.09	63,63,63,63	0
54	MG	1A	3982	1/1	0.87	0.15	66,66,66,66	0
54	MG	1A	3516	1/1	0.87	0.12	64,64,64,64	0
54	MG	1A	3990	1/1	0.87	0.10	50,50,50,50	0
54	MG	1A	3377	1/1	0.87	0.15	59,59,59,59	0
54	MG	2A	3436	1/1	0.87	0.14	67,67,67,67	0
54	MG	2A	3440	1/1	0.87	0.14	76,76,76,76	0
54	MG	1A	3533	1/1	0.87	0.20	64,64,64,64	0
54	MG	1A	3658	1/1	0.87	0.20	58,58,58,58	0
54	MG	2A	3098	1/1	0.87	0.12	76,76,76,76	0
54	MG	2a	3061	1/1	0.87	0.34	78,78,78,78	0
54	MG	1A	3541	1/1	0.87	0.20	62,62,62,62	0
54	MG	1A	3864	1/1	0.87	0.13	63,63,63,63	0
54	MG	1A	3672	1/1	0.87	0.12	37,37,37,37	0
54	MG	1a	1648	1/1	0.87	0.14	71,71,71,71	0
54	MG	1a	1659	1/1	0.87	0.16	72,72,72,72	0
54	MG	1A	3874	1/1	0.87	0.11	47,47,47,47	0
54	MG	2A	3165	1/1	0.87	0.27	66,66,66,66	0
54	MG	1a	1665	1/1	0.87	0.19	76,76,76,76	0
54	MG	2a	3082	1/1	0.87	0.27	63,63,63,63	0
54	MG	2a	3087	1/1	0.87	0.23	80,80,80,80	0
54	MG	2A	3486	1/1	0.87	0.13	69,69,69,69	0
54	MG	2a	3101	1/1	0.87	0.11	78,78,78,78	0
54	MG	2a	3102	1/1	0.87	0.14	63,63,63,63	0
54	MG	1A	3678	1/1	0.87	0.14	69,69,69,69	0
54	MG	2a	3116	1/1	0.87	0.13	70,70,70,70	0
54	MG	2a	3117	1/1	0.87	0.24	78,78,78,78	0
54	MG	1A	3378	1/1	0.87	0.10	43,43,43,43	0
54	MG	1A	3061	1/1	0.87	0.18	67,67,67,67	0
54	MG	2a	3124	1/1	0.87	0.16	80,80,80,80	0
54	MG	1B	216	1/1	0.87	0.13	63,63,63,63	0
54	MG	1A	3151	1/1	0.87	0.12	52,52,52,52	0
54	MG	2A	3535	1/1	0.87	0.17	63,63,63,63	0
54	MG	1A	3291	1/1	0.87	0.11	82,82,82,82	0
54	MG	2A	3550	1/1	0.87	0.16	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3151	1/1	0.87	0.21	74,74,74,74	0
54	MG	2A	3220	1/1	0.87	0.14	41,41,41,41	0
54	MG	2A	3557	1/1	0.87	0.14	67,67,67,67	0
54	MG	1A	3099	1/1	0.87	0.14	49,49,49,49	0
54	MG	2A	3559	1/1	0.87	0.12	63,63,63,63	0
54	MG	2a	3171	1/1	0.87	0.17	78,78,78,78	0
54	MG	2A	3240	1/1	0.87	0.11	50,50,50,50	0
54	MG	2A	3241	1/1	0.87	0.17	60,60,60,60	0
54	MG	1A	3201	1/1	0.87	0.13	56,56,56,56	0
54	MG	2A	3247	1/1	0.87	0.11	63,63,63,63	0
54	MG	1F	310	1/1	0.87	0.16	40,40,40,40	0
54	MG	2A	3275	1/1	0.87	0.21	73,73,73,73	0
54	MG	1a	1701	1/1	0.87	0.20	72,72,72,72	0
54	MG	1A	3729	1/1	0.87	0.09	42,42,42,42	0
54	MG	1A	3222	1/1	0.87	0.11	71,71,71,71	0
54	MG	1A	3603	1/1	0.87	0.24	74,74,74,74	0
54	MG	1R	203	1/1	0.87	0.10	48,48,48,48	0
54	MG	1a	1718	1/1	0.87	0.21	65,65,65,65	0
54	MG	1V	205	1/1	0.88	0.15	67,67,67,67	0
54	MG	1A	3479	1/1	0.88	0.11	45,45,45,45	0
54	MG	1a	1871	1/1	0.88	0.16	81,81,81,81	0
54	MG	1A	3836	1/1	0.88	0.10	60,60,60,60	0
54	MG	2A	3327	1/1	0.88	0.14	56,56,56,56	0
54	MG	1A	3392	1/1	0.88	0.15	50,50,50,50	0
54	MG	2A	3668	1/1	0.88	0.20	77,77,77,77	0
54	MG	1a	1722	1/1	0.88	0.19	64,64,64,64	0
54	MG	15	105	1/1	0.88	0.21	51,51,51,51	0
54	MG	2A	3336	1/1	0.88	0.23	65,65,65,65	0
54	MG	1A	3483	1/1	0.88	0.12	58,58,58,58	0
54	MG	1A	3598	1/1	0.88	0.22	70,70,70,70	0
54	MG	1A	3600	1/1	0.88	0.10	45,45,45,45	0
54	MG	1A	3853	1/1	0.88	0.10	65,65,65,65	0
54	MG	1A	3996	1/1	0.88	0.31	56,56,56,56	0
54	MG	1i	201	1/1	0.88	0.15	70,70,70,70	0
54	MG	1a	1747	1/1	0.88	0.16	71,71,71,71	0
54	MG	2A	3383	1/1	0.88	0.13	62,62,62,62	0
54	MG	2A	3384	1/1	0.88	0.13	69,69,69,69	0
54	MG	1A	3488	1/1	0.88	0.14	51,51,51,51	0
54	MG	1t	201	1/1	0.88	0.10	62,62,62,62	0
54	MG	1A	3280	1/1	0.88	0.13	51,51,51,51	0
54	MG	2A	3012	1/1	0.88	0.16	64,64,64,64	0
54	MG	2a	3010	1/1	0.88	0.33	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3016	1/1	0.88	0.24	73,73,73,73	0
54	MG	2a	3017	1/1	0.88	0.10	66,66,66,66	0
54	MG	2a	3020	1/1	0.88	0.18	86,86,86,86	0
54	MG	2A	3407	1/1	0.88	0.15	65,65,65,65	0
54	MG	2A	3029	1/1	0.88	0.20	52,52,52,52	0
54	MG	1A	3707	1/1	0.88	0.13	67,67,67,67	0
54	MG	2a	3029	1/1	0.88	0.14	68,68,68,68	0
54	MG	1a	1763	1/1	0.88	0.15	67,67,67,67	0
54	MG	1A	3711	1/1	0.88	0.16	59,59,59,59	0
54	MG	1A	3875	1/1	0.88	0.12	44,44,44,44	0
54	MG	1a	1769	1/1	0.88	0.11	65,65,65,65	0
54	MG	1A	3068	1/1	0.88	0.23	53,53,53,53	0
54	MG	2A	3433	1/1	0.88	0.21	73,73,73,73	0
54	MG	1A	3717	1/1	0.88	0.13	66,66,66,66	0
54	MG	1a	1774	1/1	0.88	0.10	66,66,66,66	0
54	MG	2a	3055	1/1	0.88	0.29	68,68,68,68	0
54	MG	1a	1775	1/1	0.88	0.10	60,60,60,60	0
54	MG	1A	3041	1/1	0.88	0.14	55,55,55,55	0
54	MG	1A	3310	1/1	0.88	0.10	77,77,77,77	0
54	MG	2A	3448	1/1	0.88	0.12	66,66,66,66	0
54	MG	2A	3451	1/1	0.88	0.17	62,62,62,62	0
54	MG	1A	3731	1/1	0.88	0.24	73,73,73,73	0
54	MG	2a	3071	1/1	0.88	0.11	62,62,62,62	0
54	MG	1a	1661	1/1	0.88	0.28	70,70,70,70	0
54	MG	1B	220	1/1	0.88	0.13	70,70,70,70	0
54	MG	2a	3076	1/1	0.88	0.19	70,70,70,70	0
54	MG	1A	3614	1/1	0.88	0.09	46,46,46,46	0
54	MG	2a	3079	1/1	0.88	0.19	76,76,76,76	0
54	MG	2A	3463	1/1	0.88	0.13	59,59,59,59	0
54	MG	1a	1667	1/1	0.88	0.14	79,79,79,79	0
54	MG	2A	3151	1/1	0.88	0.30	56,56,56,56	0
54	MG	1A	3461	1/1	0.88	0.15	34,34,34,34	0
54	MG	2A	3478	1/1	0.88	0.10	68,68,68,68	0
54	MG	2A	3167	1/1	0.88	0.15	59,59,59,59	0
54	MG	1A	3412	1/1	0.88	0.09	45,45,45,45	0
54	MG	2A	3498	1/1	0.88	0.13	43,43,43,43	0
54	MG	2A	3192	1/1	0.88	0.16	65,65,65,65	0
54	MG	1A	3165	1/1	0.88	0.33	73,73,73,73	0
54	MG	2A	3201	1/1	0.88	0.16	71,71,71,71	0
54	MG	1A	3773	1/1	0.88	0.08	36,36,36,36	0
54	MG	1a	1682	1/1	0.88	0.17	56,56,56,56	0
54	MG	1F	312	1/1	0.88	0.37	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3537	1/1	0.88	0.09	72,72,72,72	0
54	MG	1A	3027	1/1	0.88	0.10	64,64,64,64	0
54	MG	2a	3141	1/1	0.88	0.12	78,78,78,78	0
54	MG	1a	1687	1/1	0.88	0.23	73,73,73,73	0
54	MG	1a	1689	1/1	0.88	0.14	73,73,73,73	0
54	MG	2a	3154	1/1	0.88	0.13	56,56,56,56	0
54	MG	2A	3555	1/1	0.88	0.18	42,42,42,42	0
54	MG	2a	3161	1/1	0.88	0.10	80,80,80,80	0
54	MG	1a	1693	1/1	0.88	0.21	72,72,72,72	0
54	MG	1G	202	1/1	0.88	0.11	56,56,56,56	0
54	MG	1A	3562	1/1	0.88	0.10	62,62,62,62	0
54	MG	1A	3798	1/1	0.88	0.14	65,65,65,65	0
54	MG	1A	3433	1/1	0.88	0.14	29,29,29,29	0
54	MG	2A	3253	1/1	0.88	0.21	74,74,74,74	0
54	MG	1T	203	1/1	0.88	0.13	64,64,64,64	0
54	MG	2A	3273	1/1	0.88	0.11	43,43,43,43	0
54	MG	2a	3188	1/1	0.88	0.34	76,76,76,76	0
54	MG	1a	1703	1/1	0.88	0.16	75,75,75,75	0
54	MG	1a	1839	1/1	0.88	0.14	61,61,61,61	0
54	MG	1a	1706	1/1	0.88	0.35	71,71,71,71	0
54	MG	1A	3660	1/1	0.88	0.26	65,65,65,65	0
54	MG	2A	3630	1/1	0.88	0.17	50,50,50,50	0
57	MPD	1A	4028	8/8	0.88	0.21	50,52,60,64	0
54	MG	1a	1855	1/1	0.88	0.15	82,82,82,82	0
54	MG	2A	3306	1/1	0.88	0.10	79,79,79,79	0
54	MG	2A	3645	1/1	0.88	0.09	64,64,64,64	0
54	MG	1A	3035	1/1	0.89	0.12	54,54,54,54	0
54	MG	1A	3153	1/1	0.89	0.10	67,67,67,67	0
54	MG	2A	3087	1/1	0.89	0.19	63,63,63,63	0
54	MG	2B	211	1/1	0.89	0.12	88,88,88,88	0
54	MG	1A	3368	1/1	0.89	0.12	46,46,46,46	0
54	MG	2A	3401	1/1	0.89	0.16	68,68,68,68	0
54	MG	1A	3976	1/1	0.89	0.10	40,40,40,40	0
54	MG	1A	3089	1/1	0.89	0.17	56,56,56,56	0
54	MG	10	108	1/1	0.89	0.13	76,76,76,76	0
54	MG	2A	3114	1/1	0.89	0.17	74,74,74,74	0
54	MG	1A	3066	1/1	0.89	0.14	67,67,67,67	0
54	MG	1A	3128	1/1	0.89	0.17	50,50,50,50	0
54	MG	20	102	1/1	0.89	0.14	69,69,69,69	0
54	MG	2A	3419	1/1	0.89	0.20	60,60,60,60	0
54	MG	2A	3147	1/1	0.89	0.31	79,79,79,79	0
54	MG	2a	3006	1/1	0.89	0.33	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3008	1/1	0.89	0.24	65,65,65,65	0
54	MG	1A	3308	1/1	0.89	0.20	73,73,73,73	0
54	MG	2a	3011	1/1	0.89	0.15	71,71,71,71	0
54	MG	15	104	1/1	0.89	0.19	39,39,39,39	0
54	MG	2A	3161	1/1	0.89	0.20	62,62,62,62	0
54	MG	1a	1824	1/1	0.89	0.16	61,61,61,61	0
54	MG	2A	3166	1/1	0.89	0.15	64,64,64,64	0
54	MG	2a	3024	1/1	0.89	0.15	68,68,68,68	0
54	MG	1A	3669	1/1	0.89	0.09	35,35,35,35	0
54	MG	1a	1712	1/1	0.89	0.41	73,73,73,73	0
54	MG	2A	3445	1/1	0.89	0.17	66,66,66,66	0
54	MG	1A	3671	1/1	0.89	0.14	69,69,69,69	0
54	MG	2A	3194	1/1	0.89	0.22	73,73,73,73	0
54	MG	1A	3771	1/1	0.89	0.16	54,54,54,54	0
54	MG	1A	3888	1/1	0.89	0.14	65,65,65,65	0
54	MG	1A	3550	1/1	0.89	0.18	60,60,60,60	0
54	MG	2A	3208	1/1	0.89	0.14	56,56,56,56	0
54	MG	2a	3050	1/1	0.89	0.23	77,77,77,77	0
54	MG	1a	1840	1/1	0.89	0.11	83,83,83,83	0
54	MG	1A	3180	1/1	0.89	0.19	70,70,70,70	0
54	MG	1a	1851	1/1	0.89	0.11	68,68,68,68	0
54	MG	2a	3057	1/1	0.89	0.17	66,66,66,66	0
54	MG	1A	4002	1/1	0.89	0.13	67,67,67,67	0
54	MG	2a	3060	1/1	0.89	0.10	71,71,71,71	0
54	MG	1a	1625	1/1	0.89	0.32	67,67,67,67	0
54	MG	1a	1859	1/1	0.89	0.09	69,69,69,69	0
54	MG	1A	3775	1/1	0.89	0.13	55,55,55,55	0
54	MG	1A	3185	1/1	0.89	0.15	56,56,56,56	0
54	MG	1a	1742	1/1	0.89	0.11	64,64,64,64	0
54	MG	1A	3684	1/1	0.89	0.14	63,63,63,63	0
54	MG	2A	3502	1/1	0.89	0.13	49,49,49,49	0
54	MG	1A	3789	1/1	0.89	0.13	49,49,49,49	0
54	MG	1A	3795	1/1	0.89	0.12	62,62,62,62	0
54	MG	2A	3512	1/1	0.89	0.11	74,74,74,74	0
54	MG	1A	3912	1/1	0.89	0.07	21,21,21,21	0
54	MG	2A	3520	1/1	0.89	0.09	54,54,54,54	0
54	MG	1A	3913	1/1	0.89	0.10	31,31,31,31	0
54	MG	2a	3086	1/1	0.89	0.17	74,74,74,74	0
54	MG	1d	301	1/1	0.89	0.22	78,78,78,78	0
54	MG	2a	3090	1/1	0.89	0.12	69,69,69,69	0
54	MG	1A	3915	1/1	0.89	0.08	61,61,61,61	0
54	MG	2a	3099	1/1	0.89	0.18	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3539	1/1	0.89	0.08	59,59,59,59	0
54	MG	1a	1653	1/1	0.89	0.11	65,65,65,65	0
54	MG	2A	3549	1/1	0.89	0.12	69,69,69,69	0
54	MG	2A	3288	1/1	0.89	0.12	75,75,75,75	0
54	MG	2A	3552	1/1	0.89	0.08	79,79,79,79	0
54	MG	2A	3297	1/1	0.89	0.15	78,78,78,78	0
54	MG	1a	1658	1/1	0.89	0.12	75,75,75,75	0
54	MG	2A	3556	1/1	0.89	0.14	48,48,48,48	0
54	MG	2a	3128	1/1	0.89	0.19	75,75,75,75	0
54	MG	1A	3011	1/1	0.89	0.12	55,55,55,55	0
54	MG	1A	3615	1/1	0.89	0.13	44,44,44,44	0
54	MG	1a	1770	1/1	0.89	0.13	57,57,57,57	0
54	MG	2a	3136	1/1	0.89	0.12	76,76,76,76	0
54	MG	2A	3319	1/1	0.89	0.12	62,62,62,62	0
54	MG	1B	228	1/1	0.89	0.08	65,65,65,65	0
54	MG	1a	1772	1/1	0.89	0.18	72,72,72,72	0
54	MG	2A	3326	1/1	0.89	0.09	62,62,62,62	0
54	MG	2A	3003	1/1	0.89	0.12	67,67,67,67	0
54	MG	2A	3005	1/1	0.89	0.12	63,63,63,63	0
54	MG	2a	3160	1/1	0.89	0.12	64,64,64,64	0
54	MG	1A	3694	1/1	0.89	0.14	68,68,68,68	0
54	MG	2A	3601	1/1	0.89	0.09	77,77,77,77	0
54	MG	1A	3807	1/1	0.89	0.19	61,61,61,61	0
54	MG	1E	308	1/1	0.89	0.14	62,62,62,62	0
54	MG	2a	3170	1/1	0.89	0.19	69,69,69,69	0
54	MG	1a	1671	1/1	0.89	0.21	62,62,62,62	0
54	MG	2A	3353	1/1	0.89	0.20	56,56,56,56	0
54	MG	2A	3034	1/1	0.89	0.10	68,68,68,68	0
54	MG	2A	3356	1/1	0.89	0.21	89,89,89,89	0
54	MG	2a	3186	1/1	0.89	0.36	76,76,76,76	0
54	MG	1A	3949	1/1	0.89	0.10	37,37,37,37	0
54	MG	1A	3574	1/1	0.89	0.14	61,61,61,61	0
54	MG	2A	3360	1/1	0.89	0.15	70,70,70,70	0
54	MG	1A	3622	1/1	0.89	0.24	40,40,40,40	0
54	MG	1a	1679	1/1	0.89	0.14	66,66,66,66	0
54	MG	1A	3964	1/1	0.89	0.10	68,68,68,68	0
54	MG	2A	3382	1/1	0.89	0.12	69,69,69,69	0
54	MG	1A	3966	1/1	0.89	0.11	54,54,54,54	0
57	MPD	1a	1882	8/8	0.89	0.13	62,65,70,72	0
54	MG	1N	204	1/1	0.89	0.09	62,62,62,62	0
54	MG	2B	202	1/1	0.89	0.25	75,75,75,75	0
54	MG	2A	3389	1/1	0.89	0.17	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3086	1/1	0.90	0.34	65,65,65,65	0
54	MG	1A	3900	1/1	0.90	0.14	57,57,57,57	0
54	MG	2A	3095	1/1	0.90	0.23	63,63,63,63	0
54	MG	1B	223	1/1	0.90	0.15	60,60,60,60	0
54	MG	1A	3911	1/1	0.90	0.13	62,62,62,62	0
54	MG	1A	3038	1/1	0.90	0.09	40,40,40,40	0
54	MG	2T	204	1/1	0.90	0.13	60,60,60,60	0
54	MG	1A	3324	1/1	0.90	0.12	62,62,62,62	0
54	MG	2I	101	1/1	0.90	0.15	75,75,75,75	0
54	MG	1a	1807	1/1	0.90	0.08	57,57,57,57	0
54	MG	1a	1808	1/1	0.90	0.14	57,57,57,57	0
54	MG	1A	3572	1/1	0.90	0.14	55,55,55,55	0
54	MG	2A	3139	1/1	0.90	0.12	57,57,57,57	0
54	MG	2A	3140	1/1	0.90	0.25	56,56,56,56	0
54	MG	1a	1812	1/1	0.90	0.12	57,57,57,57	0
54	MG	1D	312	1/1	0.90	0.25	47,47,47,47	0
54	MG	1A	3256	1/1	0.90	0.19	60,60,60,60	0
54	MG	1E	305	1/1	0.90	0.10	31,31,31,31	0
54	MG	1A	3346	1/1	0.90	0.08	31,31,31,31	0
54	MG	1A	3480	1/1	0.90	0.13	58,58,58,58	0
54	MG	1A	3593	1/1	0.90	0.22	64,64,64,64	0
54	MG	2A	3175	1/1	0.90	0.18	47,47,47,47	0
54	MG	1F	313	1/1	0.90	0.15	45,45,45,45	0
54	MG	2a	3030	1/1	0.90	0.18	71,71,71,71	0
54	MG	1A	3594	1/1	0.90	0.22	40,40,40,40	0
54	MG	1A	3802	1/1	0.90	0.21	69,69,69,69	0
54	MG	2A	3198	1/1	0.90	0.18	78,78,78,78	0
54	MG	1A	3014	1/1	0.90	0.25	63,63,63,63	0
54	MG	1A	3110	1/1	0.90	0.20	48,48,48,48	0
54	MG	2A	3464	1/1	0.90	0.17	63,63,63,63	0
54	MG	1a	1831	1/1	0.90	0.15	73,73,73,73	0
54	MG	1A	3277	1/1	0.90	0.31	75,75,75,75	0
54	MG	1A	3814	1/1	0.90	0.38	53,53,53,53	0
54	MG	1a	1699	1/1	0.90	0.19	69,69,69,69	0
54	MG	1T	201	1/1	0.90	0.11	49,49,49,49	0
54	MG	1A	3493	1/1	0.90	0.11	40,40,40,40	0
54	MG	2A	3494	1/1	0.90	0.10	74,74,74,74	0
54	MG	1A	3113	1/1	0.90	0.14	61,61,61,61	0
54	MG	2A	3232	1/1	0.90	0.22	58,58,58,58	0
54	MG	1a	1850	1/1	0.90	0.24	68,68,68,68	0
54	MG	2A	3237	1/1	0.90	0.08	42,42,42,42	0
54	MG	1A	3508	1/1	0.90	0.13	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1Y	202	1/1	0.90	0.16	58,58,58,58	0
54	MG	2A	3515	1/1	0.90	0.12	49,49,49,49	0
54	MG	1A	3439	1/1	0.90	0.12	38,38,38,38	0
54	MG	1A	3705	1/1	0.90	0.10	53,53,53,53	0
54	MG	2a	3077	1/1	0.90	0.15	64,64,64,64	0
54	MG	1A	3156	1/1	0.90	0.19	61,61,61,61	0
54	MG	2A	3259	1/1	0.90	0.10	51,51,51,51	0
54	MG	1l	106	1/1	0.90	0.10	40,40,40,40	0
54	MG	1a	1867	1/1	0.90	0.16	66,66,66,66	0
54	MG	1A	3983	1/1	0.90	0.10	54,54,54,54	0
54	MG	1A	3709	1/1	0.90	0.40	54,54,54,54	0
54	MG	1A	3988	1/1	0.90	0.09	60,60,60,60	0
54	MG	1a	1875	1/1	0.90	0.22	71,71,71,71	0
54	MG	2a	3095	1/1	0.90	0.27	62,62,62,62	0
54	MG	1A	3382	1/1	0.90	0.08	20,20,20,20	0
54	MG	2A	3289	1/1	0.90	0.16	47,47,47,47	0
54	MG	1a	1877	1/1	0.90	0.07	72,72,72,72	0
54	MG	19	102	1/1	0.90	0.14	71,71,71,71	0
54	MG	2a	3114	1/1	0.90	0.17	78,78,78,78	0
54	MG	1a	1601	1/1	0.90	0.11	57,57,57,57	0
54	MG	2A	3307	1/1	0.90	0.18	57,57,57,57	0
54	MG	1a	1602	1/1	0.90	0.13	75,75,75,75	0
54	MG	1A	3188	1/1	0.90	0.15	65,65,65,65	0
54	MG	1a	1606	1/1	0.90	0.23	66,66,66,66	0
54	MG	2a	3125	1/1	0.90	0.17	69,69,69,69	0
54	MG	2a	3126	1/1	0.90	0.13	77,77,77,77	0
54	MG	1a	1609	1/1	0.90	0.14	69,69,69,69	0
54	MG	1a	1745	1/1	0.90	0.18	57,57,57,57	0
54	MG	1a	1611	1/1	0.90	0.19	53,53,53,53	0
54	MG	2a	3132	1/1	0.90	0.13	67,67,67,67	0
54	MG	1a	1753	1/1	0.90	0.23	79,79,79,79	0
54	MG	1n	101	1/1	0.90	0.09	63,63,63,63	0
54	MG	1a	1756	1/1	0.90	0.18	65,65,65,65	0
54	MG	2A	3608	1/1	0.90	0.12	67,67,67,67	0
54	MG	2a	3145	1/1	0.90	0.15	75,75,75,75	0
54	MG	1A	3453	1/1	0.90	0.10	69,69,69,69	0
54	MG	2A	3622	1/1	0.90	0.10	64,64,64,64	0
54	MG	1A	3723	1/1	0.90	0.22	35,35,35,35	0
54	MG	2a	3156	1/1	0.90	0.16	67,67,67,67	0
54	MG	2A	3341	1/1	0.90	0.19	71,71,71,71	0
54	MG	1A	3160	1/1	0.90	0.17	45,45,45,45	0
54	MG	2A	3642	1/1	0.90	0.23	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3352	1/1	0.90	0.21	67,67,67,67	0
54	MG	1A	3882	1/1	0.90	0.17	39,39,39,39	0
54	MG	2A	3657	1/1	0.90	0.15	58,58,58,58	0
54	MG	1A	3223	1/1	0.90	0.11	64,64,64,64	0
54	MG	1A	3632	1/1	0.90	0.09	22,22,22,22	0
54	MG	2A	3017	1/1	0.90	0.15	56,56,56,56	0
54	MG	2A	3664	1/1	0.90	0.22	69,69,69,69	0
54	MG	2a	3183	1/1	0.90	0.17	80,80,80,80	0
54	MG	1A	4020	1/1	0.90	0.09	33,33,33,33	0
54	MG	2A	3032	1/1	0.90	0.14	63,63,63,63	0
54	MG	1A	3635	1/1	0.90	0.12	42,42,42,42	0
54	MG	1A	3745	1/1	0.90	0.12	58,58,58,58	0
54	MG	1A	3753	1/1	0.90	0.22	60,60,60,60	0
54	MG	2B	201	1/1	0.90	0.18	67,67,67,67	0
54	MG	1a	1641	1/1	0.90	0.14	56,56,56,56	0
54	MG	1A	3645	1/1	0.90	0.15	55,55,55,55	0
54	MG	1B	206	1/1	0.90	0.24	64,64,64,64	0
54	MG	2A	3388	1/1	0.90	0.11	49,49,49,49	0
54	MG	1a	1646	1/1	0.90	0.22	65,65,65,65	0
54	MG	1B	208	1/1	0.90	0.12	64,64,64,64	0
54	MG	1A	3648	1/1	0.90	0.27	36,36,36,36	0
54	MG	1A	3314	1/1	0.90	0.14	44,44,44,44	0
54	MG	1A	3437	1/1	0.91	0.09	61,61,61,61	0
54	MG	2A	3652	1/1	0.91	0.09	55,55,55,55	0
54	MG	1A	3492	1/1	0.91	0.07	28,28,28,28	0
54	MG	2A	3658	1/1	0.91	0.21	71,71,71,71	0
54	MG	2A	3313	1/1	0.91	0.11	62,62,62,62	0
54	MG	1A	3129	1/1	0.91	0.23	52,52,52,52	0
54	MG	2A	3661	1/1	0.91	0.15	71,71,71,71	0
54	MG	1d	303	1/1	0.91	0.11	74,74,74,74	0
54	MG	1A	3447	1/1	0.91	0.20	66,66,66,66	0
54	MG	1a	1730	1/1	0.91	0.16	77,77,77,77	0
54	MG	2A	3323	1/1	0.91	0.10	50,50,50,50	0
54	MG	2A	3324	1/1	0.91	0.13	53,53,53,53	0
54	MG	2A	3325	1/1	0.91	0.12	66,66,66,66	0
54	MG	1A	3987	1/1	0.91	0.10	62,62,62,62	0
54	MG	1a	1736	1/1	0.91	0.08	58,58,58,58	0
54	MG	1A	3601	1/1	0.91	0.14	52,52,52,52	0
54	MG	1l	201	1/1	0.91	0.14	75,75,75,75	0
54	MG	1A	3602	1/1	0.91	0.09	55,55,55,55	0
54	MG	1A	3327	1/1	0.91	0.12	68,68,68,68	0
54	MG	1A	3218	1/1	0.91	0.24	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3855	1/1	0.91	0.11	56,56,56,56	0
54	MG	1y	201	1/1	0.91	0.18	73,73,73,73	0
54	MG	1y	202	1/1	0.91	0.16	74,74,74,74	0
54	MG	1A	3521	1/1	0.91	0.12	70,70,70,70	0
54	MG	1A	3710	1/1	0.91	0.14	45,45,45,45	0
54	MG	1A	3257	1/1	0.91	0.17	68,68,68,68	0
54	MG	1A	3258	1/1	0.91	0.16	56,56,56,56	0
54	MG	1A	4009	1/1	0.91	0.11	48,48,48,48	0
54	MG	2T	201	1/1	0.91	0.20	62,62,62,62	0
54	MG	1a	1760	1/1	0.91	0.13	70,70,70,70	0
54	MG	1A	3534	1/1	0.91	0.09	30,30,30,30	0
54	MG	2U	201	1/1	0.91	0.14	80,80,80,80	0
54	MG	1A	4023	1/1	0.91	0.12	70,70,70,70	0
54	MG	1a	1764	1/1	0.91	0.16	71,71,71,71	0
54	MG	1a	1624	1/1	0.91	0.17	56,56,56,56	0
54	MG	2a	3004	1/1	0.91	0.11	57,57,57,57	0
54	MG	1A	3876	1/1	0.91	0.08	62,62,62,62	0
54	MG	2A	3046	1/1	0.91	0.24	66,66,66,66	0
54	MG	2a	3007	1/1	0.91	0.13	62,62,62,62	0
54	MG	1a	1627	1/1	0.91	0.12	73,73,73,73	0
54	MG	1B	201	1/1	0.91	0.17	63,63,63,63	0
54	MG	1A	3719	1/1	0.91	0.12	59,59,59,59	0
54	MG	2A	3396	1/1	0.91	0.10	71,71,71,71	0
54	MG	1a	1633	1/1	0.91	0.18	63,63,63,63	0
54	MG	2A	3056	1/1	0.91	0.13	45,45,45,45	0
54	MG	2A	3057	1/1	0.91	0.09	40,40,40,40	0
54	MG	1A	3884	1/1	0.91	0.11	52,52,52,52	0
54	MG	1A	3538	1/1	0.91	0.10	57,57,57,57	0
54	MG	1A	3400	1/1	0.91	0.14	64,64,64,64	0
54	MG	2a	3028	1/1	0.91	0.21	74,74,74,74	0
54	MG	1A	3357	1/1	0.91	0.09	56,56,56,56	0
54	MG	2A	3411	1/1	0.91	0.12	68,68,68,68	0
54	MG	2a	3032	1/1	0.91	0.17	71,71,71,71	0
54	MG	2a	3033	1/1	0.91	0.18	79,79,79,79	0
54	MG	1a	1779	1/1	0.91	0.22	70,70,70,70	0
54	MG	2a	3035	1/1	0.91	0.17	66,66,66,66	0
54	MG	2a	3037	1/1	0.91	0.14	68,68,68,68	0
54	MG	2A	3094	1/1	0.91	0.12	52,52,52,52	0
54	MG	1a	1642	1/1	0.91	0.23	75,75,75,75	0
54	MG	1A	3626	1/1	0.91	0.25	37,37,37,37	0
54	MG	1B	214	1/1	0.91	0.17	59,59,59,59	0
54	MG	1A	3739	1/1	0.91	0.10	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3048	1/1	0.91	0.26	71,71,71,71	0
54	MG	1A	3299	1/1	0.91	0.15	57,57,57,57	0
54	MG	1a	1796	1/1	0.91	0.15	65,65,65,65	0
54	MG	2a	3052	1/1	0.91	0.25	63,63,63,63	0
54	MG	2a	3053	1/1	0.91	0.24	63,63,63,63	0
54	MG	2A	3437	1/1	0.91	0.16	75,75,75,75	0
54	MG	2A	3116	1/1	0.91	0.17	50,50,50,50	0
54	MG	2A	3122	1/1	0.91	0.19	66,66,66,66	0
54	MG	1a	1649	1/1	0.91	0.15	57,57,57,57	0
54	MG	2A	3132	1/1	0.91	0.12	61,61,61,61	0
54	MG	1a	1800	1/1	0.91	0.26	68,68,68,68	0
54	MG	2A	3137	1/1	0.91	0.10	62,62,62,62	0
54	MG	2A	3449	1/1	0.91	0.10	53,53,53,53	0
54	MG	2a	3066	1/1	0.91	0.25	76,76,76,76	0
54	MG	1A	3629	1/1	0.91	0.12	44,44,44,44	0
54	MG	1a	1805	1/1	0.91	0.19	69,69,69,69	0
54	MG	2A	3142	1/1	0.91	0.19	56,56,56,56	0
54	MG	1B	224	1/1	0.91	0.10	56,56,56,56	0
54	MG	1A	3408	1/1	0.91	0.08	33,33,33,33	0
54	MG	1A	3472	1/1	0.91	0.11	58,58,58,58	0
54	MG	1A	3904	1/1	0.91	0.11	58,58,58,58	0
54	MG	2A	3465	1/1	0.91	0.12	70,70,70,70	0
54	MG	1a	1664	1/1	0.91	0.17	68,68,68,68	0
54	MG	1A	3638	1/1	0.91	0.10	29,29,29,29	0
54	MG	1D	310	1/1	0.91	0.27	48,48,48,48	0
54	MG	2a	3085	1/1	0.91	0.14	76,76,76,76	0
54	MG	2A	3174	1/1	0.91	0.19	59,59,59,59	0
54	MG	1A	3767	1/1	0.91	0.15	66,66,66,66	0
54	MG	2A	3484	1/1	0.91	0.14	57,57,57,57	0
54	MG	1a	1670	1/1	0.91	0.39	69,69,69,69	0
54	MG	1A	3262	1/1	0.91	0.09	77,77,77,77	0
54	MG	2a	3096	1/1	0.91	0.27	70,70,70,70	0
54	MG	2A	3497	1/1	0.91	0.10	64,64,64,64	0
54	MG	1A	3647	1/1	0.91	0.13	49,49,49,49	0
54	MG	1A	3916	1/1	0.91	0.10	32,32,32,32	0
54	MG	2a	3106	1/1	0.91	0.20	76,76,76,76	0
54	MG	1a	1674	1/1	0.91	0.26	61,61,61,61	0
54	MG	2a	3110	1/1	0.91	0.12	67,67,67,67	0
54	MG	1A	3569	1/1	0.91	0.08	47,47,47,47	0
54	MG	2a	3115	1/1	0.91	0.12	68,68,68,68	0
54	MG	1a	1825	1/1	0.91	0.21	56,56,56,56	0
54	MG	2A	3508	1/1	0.91	0.15	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3268	1/1	0.91	0.09	58,58,58,58	0
54	MG	1A	3207	1/1	0.91	0.27	52,52,52,52	0
54	MG	2A	3517	1/1	0.91	0.18	63,63,63,63	0
54	MG	2A	3213	1/1	0.91	0.38	67,67,67,67	0
54	MG	1A	3943	1/1	0.91	0.16	58,58,58,58	0
54	MG	2a	3127	1/1	0.91	0.19	71,71,71,71	0
54	MG	2A	3521	1/1	0.91	0.15	54,54,54,54	0
54	MG	1A	3381	1/1	0.91	0.11	26,26,26,26	0
54	MG	1a	1835	1/1	0.91	0.18	69,69,69,69	0
54	MG	2A	3219	1/1	0.91	0.22	78,78,78,78	0
54	MG	1A	3575	1/1	0.91	0.09	68,68,68,68	0
54	MG	2a	3134	1/1	0.91	0.21	70,70,70,70	0
54	MG	2A	3229	1/1	0.91	0.12	57,57,57,57	0
54	MG	1N	203	1/1	0.91	0.10	69,69,69,69	0
54	MG	2a	3139	1/1	0.91	0.09	67,67,67,67	0
54	MG	1a	1692	1/1	0.91	0.14	62,62,62,62	0
54	MG	1A	3952	1/1	0.91	0.11	52,52,52,52	0
54	MG	2a	3147	1/1	0.91	0.08	46,46,46,46	0
54	MG	1A	3792	1/1	0.91	0.14	49,49,49,49	0
54	MG	1P	206	1/1	0.91	0.08	77,77,77,77	0
54	MG	2a	3152	1/1	0.91	0.14	72,72,72,72	0
54	MG	1A	3583	1/1	0.91	0.12	70,70,70,70	0
54	MG	2A	3245	1/1	0.91	0.10	49,49,49,49	0
54	MG	1A	3797	1/1	0.91	0.16	59,59,59,59	0
54	MG	2A	3251	1/1	0.91	0.12	67,67,67,67	0
54	MG	1T	202	1/1	0.91	0.10	75,75,75,75	0
54	MG	2A	3565	1/1	0.91	0.18	58,58,58,58	0
54	MG	2A	3256	1/1	0.91	0.14	69,69,69,69	0
54	MG	1A	3434	1/1	0.91	0.12	32,32,32,32	0
54	MG	2A	3264	1/1	0.91	0.09	47,47,47,47	0
54	MG	2A	3571	1/1	0.91	0.13	78,78,78,78	0
54	MG	1a	1861	1/1	0.91	0.12	64,64,64,64	0
54	MG	1A	3587	1/1	0.91	0.15	57,57,57,57	0
54	MG	1V	204	1/1	0.91	0.12	61,61,61,61	0
54	MG	2A	3598	1/1	0.91	0.09	57,57,57,57	0
54	MG	1A	3588	1/1	0.91	0.15	72,72,72,72	0
54	MG	1a	1708	1/1	0.91	0.25	76,76,76,76	0
54	MG	2A	3284	1/1	0.91	0.13	59,59,59,59	0
54	MG	1a	1872	1/1	0.91	0.17	64,64,64,64	0
54	MG	1A	3100	1/1	0.91	0.13	62,62,62,62	0
54	MG	2A	3623	1/1	0.91	0.13	71,71,71,71	0
54	MG	1a	1713	1/1	0.91	0.12	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3632	1/1	0.91	0.11	60,60,60,60	0
54	MG	2t	201	1/1	0.91	0.21	55,55,55,55	0
54	MG	2A	3290	1/1	0.91	0.15	54,54,54,54	0
54	MG	10	107	1/1	0.91	0.10	57,57,57,57	0
54	MG	2A	3636	1/1	0.91	0.11	60,60,60,60	0
54	MG	1A	3487	1/1	0.91	0.12	58,58,58,58	0
57	MPD	2A	3675	8/8	0.91	0.15	60,65,67,69	0
54	MG	1A	3808	1/1	0.91	0.11	62,62,62,62	0
54	MG	2A	3366	1/1	0.92	0.28	66,66,66,66	0
54	MG	2A	3079	1/1	0.92	0.15	54,54,54,54	0
54	MG	1a	1787	1/1	0.92	0.13	78,78,78,78	0
54	MG	2A	3085	1/1	0.92	0.29	64,64,64,64	0
54	MG	1A	3526	1/1	0.92	0.09	28,28,28,28	0
54	MG	1A	3527	1/1	0.92	0.08	28,28,28,28	0
54	MG	2B	207	1/1	0.92	0.09	67,67,67,67	0
54	MG	1A	3879	1/1	0.92	0.09	53,53,53,53	0
54	MG	1a	1791	1/1	0.92	0.14	77,77,77,77	0
54	MG	1a	1794	1/1	0.92	0.09	70,70,70,70	0
54	MG	1a	1647	1/1	0.92	0.13	52,52,52,52	0
54	MG	2A	3105	1/1	0.92	0.15	53,53,53,53	0
54	MG	2D	301	1/1	0.92	0.22	50,50,50,50	0
54	MG	1A	3605	1/1	0.92	0.08	25,25,25,25	0
54	MG	1A	3529	1/1	0.92	0.08	52,52,52,52	0
54	MG	1a	1799	1/1	0.92	0.11	82,82,82,82	0
54	MG	1A	3320	1/1	0.92	0.12	59,59,59,59	0
54	MG	2A	3403	1/1	0.92	0.10	68,68,68,68	0
54	MG	1a	1654	1/1	0.92	0.14	68,68,68,68	0
54	MG	1a	1657	1/1	0.92	0.18	61,61,61,61	0
54	MG	1B	221	1/1	0.92	0.10	63,63,63,63	0
54	MG	1A	3062	1/1	0.92	0.17	46,46,46,46	0
54	MG	2W	202	1/1	0.92	0.17	61,61,61,61	0
54	MG	2A	3412	1/1	0.92	0.12	67,67,67,67	0
54	MG	1A	3010	1/1	0.92	0.15	67,67,67,67	0
54	MG	1A	3720	1/1	0.92	0.11	54,54,54,54	0
54	MG	2a	3003	1/1	0.92	0.12	69,69,69,69	0
54	MG	1a	1811	1/1	0.92	0.13	74,74,74,74	0
54	MG	2A	3421	1/1	0.92	0.08	62,62,62,62	0
54	MG	1B	226	1/1	0.92	0.10	55,55,55,55	0
54	MG	1A	3535	1/1	0.92	0.15	45,45,45,45	0
54	MG	1A	3536	1/1	0.92	0.10	50,50,50,50	0
54	MG	2A	3430	1/1	0.92	0.12	60,60,60,60	0
54	MG	1A	3067	1/1	0.92	0.14	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3012	1/1	0.92	0.21	70,70,70,70	0
54	MG	2A	3435	1/1	0.92	0.18	78,78,78,78	0
54	MG	2a	3016	1/1	0.92	0.18	56,56,56,56	0
54	MG	2A	3157	1/1	0.92	0.09	51,51,51,51	0
54	MG	2A	3159	1/1	0.92	0.14	47,47,47,47	0
54	MG	1D	301	1/1	0.92	0.11	48,48,48,48	0
54	MG	2A	3163	1/1	0.92	0.10	65,65,65,65	0
54	MG	2A	3442	1/1	0.92	0.15	73,73,73,73	0
54	MG	1A	3032	1/1	0.92	0.14	57,57,57,57	0
54	MG	2A	3444	1/1	0.92	0.20	74,74,74,74	0
54	MG	1A	3469	1/1	0.92	0.10	60,60,60,60	0
54	MG	1A	3279	1/1	0.92	0.20	55,55,55,55	0
54	MG	2A	3173	1/1	0.92	0.19	61,61,61,61	0
54	MG	1A	3548	1/1	0.92	0.11	56,56,56,56	0
54	MG	1A	3196	1/1	0.92	0.23	64,64,64,64	0
54	MG	2A	3452	1/1	0.92	0.19	43,43,43,43	0
54	MG	2A	3453	1/1	0.92	0.11	65,65,65,65	0
54	MG	1a	1676	1/1	0.92	0.22	66,66,66,66	0
54	MG	2A	3456	1/1	0.92	0.28	66,66,66,66	0
54	MG	2A	3458	1/1	0.92	0.13	64,64,64,64	0
54	MG	2a	3042	1/1	0.92	0.20	62,62,62,62	0
54	MG	2a	3044	1/1	0.92	0.16	79,79,79,79	0
54	MG	1A	3761	1/1	0.92	0.12	44,44,44,44	0
54	MG	2A	3460	1/1	0.92	0.10	64,64,64,64	0
54	MG	1F	311	1/1	0.92	0.30	47,47,47,47	0
54	MG	1A	3475	1/1	0.92	0.12	38,38,38,38	0
54	MG	1A	3283	1/1	0.92	0.23	57,57,57,57	0
54	MG	2A	3200	1/1	0.92	0.16	58,58,58,58	0
54	MG	1A	3643	1/1	0.92	0.10	29,29,29,29	0
54	MG	1A	3644	1/1	0.92	0.13	77,77,77,77	0
54	MG	2A	3469	1/1	0.92	0.10	44,44,44,44	0
54	MG	2A	3474	1/1	0.92	0.09	55,55,55,55	0
54	MG	1A	3051	1/1	0.92	0.21	47,47,47,47	0
54	MG	1A	3365	1/1	0.92	0.07	41,41,41,41	0
54	MG	1A	3774	1/1	0.92	0.10	59,59,59,59	0
54	MG	2A	3480	1/1	0.92	0.08	53,53,53,53	0
54	MG	2a	3063	1/1	0.92	0.12	80,80,80,80	0
54	MG	1A	3945	1/1	0.92	0.08	41,41,41,41	0
54	MG	2A	3482	1/1	0.92	0.10	54,54,54,54	0
54	MG	1a	1845	1/1	0.92	0.13	77,77,77,77	0
54	MG	1A	3571	1/1	0.92	0.15	60,60,60,60	0
54	MG	2A	3487	1/1	0.92	0.09	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3255	1/1	0.92	0.12	60,60,60,60	0
54	MG	2A	3495	1/1	0.92	0.10	73,73,73,73	0
54	MG	2A	3496	1/1	0.92	0.10	63,63,63,63	0
54	MG	1A	3786	1/1	0.92	0.14	59,59,59,59	0
54	MG	1A	3960	1/1	0.92	0.10	58,58,58,58	0
54	MG	2A	3230	1/1	0.92	0.12	63,63,63,63	0
54	MG	1A	3369	1/1	0.92	0.14	70,70,70,70	0
54	MG	1A	3963	1/1	0.92	0.08	67,67,67,67	0
54	MG	1A	3294	1/1	0.92	0.12	69,69,69,69	0
54	MG	1A	3578	1/1	0.92	0.22	63,63,63,63	0
54	MG	1A	3058	1/1	0.92	0.19	62,62,62,62	0
54	MG	2a	3089	1/1	0.92	0.18	70,70,70,70	0
54	MG	2A	3242	1/1	0.92	0.10	56,56,56,56	0
54	MG	10	103	1/1	0.92	0.16	60,60,60,60	0
54	MG	1A	3307	1/1	0.92	0.17	52,52,52,52	0
54	MG	1A	3663	1/1	0.92	0.15	58,58,58,58	0
54	MG	2A	3248	1/1	0.92	0.16	65,65,65,65	0
54	MG	2A	3249	1/1	0.92	0.09	61,61,61,61	0
54	MG	2A	3533	1/1	0.92	0.09	57,57,57,57	0
54	MG	2a	3103	1/1	0.92	0.17	74,74,74,74	0
54	MG	11	101	1/1	0.92	0.15	48,48,48,48	0
54	MG	1A	3800	1/1	0.92	0.14	66,66,66,66	0
54	MG	2a	3108	1/1	0.92	0.16	53,53,53,53	0
54	MG	1A	3664	1/1	0.92	0.24	58,58,58,58	0
54	MG	2A	3542	1/1	0.92	0.14	51,51,51,51	0
54	MG	1A	3666	1/1	0.92	0.15	59,59,59,59	0
54	MG	2A	3261	1/1	0.92	0.09	43,43,43,43	0
54	MG	13	102	1/1	0.92	0.17	53,53,53,53	0
54	MG	1A	3585	1/1	0.92	0.12	47,47,47,47	0
54	MG	1A	3441	1/1	0.92	0.17	50,50,50,50	0
54	MG	1d	302	1/1	0.92	0.19	71,71,71,71	0
54	MG	1A	3173	1/1	0.92	0.22	63,63,63,63	0
54	MG	1A	3813	1/1	0.92	0.14	63,63,63,63	0
54	MG	1a	1738	1/1	0.92	0.13	71,71,71,71	0
54	MG	1a	1740	1/1	0.92	0.12	65,65,65,65	0
54	MG	2A	3560	1/1	0.92	0.10	56,56,56,56	0
54	MG	2A	3287	1/1	0.92	0.08	41,41,41,41	0
54	MG	2A	3563	1/1	0.92	0.16	61,61,61,61	0
54	MG	1A	3674	1/1	0.92	0.12	31,31,31,31	0
54	MG	1h	202	1/1	0.92	0.19	66,66,66,66	0
54	MG	1A	3676	1/1	0.92	0.12	57,57,57,57	0
54	MG	1A	3827	1/1	0.92	0.16	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3502	1/1	0.92	0.13	60,60,60,60	0
54	MG	2A	3573	1/1	0.92	0.13	64,64,64,64	0
54	MG	2a	3143	1/1	0.92	0.07	81,81,81,81	0
54	MG	2A	3303	1/1	0.92	0.20	58,58,58,58	0
54	MG	1A	3997	1/1	0.92	0.10	38,38,38,38	0
54	MG	1a	1749	1/1	0.92	0.15	73,73,73,73	0
54	MG	1a	1607	1/1	0.92	0.21	64,64,64,64	0
54	MG	2A	3600	1/1	0.92	0.07	27,27,27,27	0
54	MG	1a	1754	1/1	0.92	0.18	61,61,61,61	0
54	MG	1A	3384	1/1	0.92	0.09	43,43,43,43	0
54	MG	1a	1757	1/1	0.92	0.30	73,73,73,73	0
54	MG	1A	3509	1/1	0.92	0.09	53,53,53,53	0
54	MG	1A	3690	1/1	0.92	0.17	68,68,68,68	0
54	MG	1A	3595	1/1	0.92	0.28	67,67,67,67	0
54	MG	2A	3627	1/1	0.92	0.12	55,55,55,55	0
54	MG	2a	3167	1/1	0.92	0.08	64,64,64,64	0
54	MG	2A	3628	1/1	0.92	0.12	57,57,57,57	0
54	MG	1A	4003	1/1	0.92	0.10	55,55,55,55	0
54	MG	1A	3515	1/1	0.92	0.11	65,65,65,65	0
54	MG	2A	3025	1/1	0.92	0.15	55,55,55,55	0
54	MG	1A	3023	1/1	0.92	0.12	37,37,37,37	0
54	MG	1A	4013	1/1	0.92	0.12	50,50,50,50	0
54	MG	1A	4017	1/1	0.92	0.21	42,42,42,42	0
54	MG	2A	3644	1/1	0.92	0.13	60,60,60,60	0
54	MG	1a	1768	1/1	0.92	0.17	68,68,68,68	0
54	MG	1a	1630	1/1	0.92	0.26	71,71,71,71	0
54	MG	2A	3649	1/1	0.92	0.12	56,56,56,56	0
54	MG	1A	4018	1/1	0.92	0.09	68,68,68,68	0
54	MG	1A	3520	1/1	0.92	0.09	29,29,29,29	0
54	MG	1A	3863	1/1	0.92	0.11	29,29,29,29	0
54	MG	2l	201	1/1	0.92	0.19	72,72,72,72	0
54	MG	1a	1634	1/1	0.92	0.23	78,78,78,78	0
54	MG	2r	101	1/1	0.92	0.13	79,79,79,79	0
54	MG	1A	3702	1/1	0.92	0.10	66,66,66,66	0
54	MG	2A	3055	1/1	0.92	0.26	63,63,63,63	0
54	MG	1A	3867	1/1	0.92	0.07	54,54,54,54	0
54	MG	1A	3870	1/1	0.92	0.12	59,59,59,59	0
54	MG	1A	3703	1/1	0.92	0.12	53,53,53,53	0
54	MG	1A	3208	1/1	0.92	0.26	67,67,67,67	0
54	MG	2A	3364	1/1	0.92	0.11	58,58,58,58	0
54	MG	2A	3379	1/1	0.93	0.07	64,64,64,64	0
54	MG	1A	3946	1/1	0.93	0.11	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3097	1/1	0.93	0.17	50,50,50,50	0
54	MG	1A	3458	1/1	0.93	0.07	44,44,44,44	0
54	MG	2A	3667	1/1	0.93	0.11	61,61,61,61	0
54	MG	2A	3385	1/1	0.93	0.13	61,61,61,61	0
54	MG	2A	3386	1/1	0.93	0.15	62,62,62,62	0
54	MG	1a	1669	1/1	0.93	0.17	68,68,68,68	0
54	MG	1A	3599	1/1	0.93	0.10	49,49,49,49	0
54	MG	1A	3197	1/1	0.93	0.17	73,73,73,73	0
54	MG	2A	3110	1/1	0.93	0.23	62,62,62,62	0
54	MG	2A	3395	1/1	0.93	0.12	54,54,54,54	0
54	MG	1F	316	1/1	0.93	0.19	59,59,59,59	0
54	MG	1A	3677	1/1	0.93	0.16	35,35,35,35	0
54	MG	1G	203	1/1	0.93	0.14	77,77,77,77	0
54	MG	1A	3330	1/1	0.93	0.09	56,56,56,56	0
54	MG	1A	3464	1/1	0.93	0.10	60,60,60,60	0
54	MG	1a	1678	1/1	0.93	0.19	67,67,67,67	0
54	MG	1A	3683	1/1	0.93	0.08	44,44,44,44	0
54	MG	1a	1681	1/1	0.93	0.17	52,52,52,52	0
54	MG	2D	307	1/1	0.93	0.18	62,62,62,62	0
54	MG	2A	3138	1/1	0.93	0.20	54,54,54,54	0
54	MG	1A	3225	1/1	0.93	0.10	44,44,44,44	0
54	MG	2F	303	1/1	0.93	0.16	54,54,54,54	0
54	MG	1A	3689	1/1	0.93	0.07	63,63,63,63	0
54	MG	1A	3345	1/1	0.93	0.13	59,59,59,59	0
54	MG	2Q	204	1/1	0.93	0.14	69,69,69,69	0
54	MG	2R	202	1/1	0.93	0.14	55,55,55,55	0
54	MG	2A	3144	1/1	0.93	0.27	61,61,61,61	0
54	MG	2A	3418	1/1	0.93	0.18	51,51,51,51	0
54	MG	1A	3810	1/1	0.93	0.19	44,44,44,44	0
54	MG	1a	1688	1/1	0.93	0.12	72,72,72,72	0
54	MG	1A	3200	1/1	0.93	0.18	47,47,47,47	0
54	MG	2Y	201	1/1	0.93	0.16	68,68,68,68	0
54	MG	2A	3154	1/1	0.93	0.19	61,61,61,61	0
54	MG	2A	3156	1/1	0.93	0.10	48,48,48,48	0
54	MG	1A	3407	1/1	0.93	0.09	40,40,40,40	0
54	MG	2A	3432	1/1	0.93	0.14	57,57,57,57	0
54	MG	1a	1826	1/1	0.93	0.14	65,65,65,65	0
54	MG	1A	3815	1/1	0.93	0.17	68,68,68,68	0
54	MG	1A	3249	1/1	0.93	0.10	46,46,46,46	0
54	MG	1A	3820	1/1	0.93	0.06	40,40,40,40	0
54	MG	1a	1698	1/1	0.93	0.13	75,75,75,75	0
54	MG	1A	3476	1/1	0.93	0.10	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3170	1/1	0.93	0.16	54,54,54,54	0
54	MG	1Z	301	1/1	0.93	0.13	61,61,61,61	0
54	MG	1A	3254	1/1	0.93	0.10	39,39,39,39	0
54	MG	10	105	1/1	0.93	0.10	47,47,47,47	0
54	MG	2A	3178	1/1	0.93	0.23	54,54,54,54	0
54	MG	2A	3179	1/1	0.93	0.20	69,69,69,69	0
54	MG	10	106	1/1	0.93	0.12	58,58,58,58	0
54	MG	2A	3187	1/1	0.93	0.22	64,64,64,64	0
54	MG	1a	1842	1/1	0.93	0.14	72,72,72,72	0
54	MG	2a	3026	1/1	0.93	0.18	64,64,64,64	0
54	MG	1a	1705	1/1	0.93	0.33	62,62,62,62	0
54	MG	1A	3549	1/1	0.93	0.09	64,64,64,64	0
54	MG	1a	1848	1/1	0.93	0.14	63,63,63,63	0
54	MG	2A	3457	1/1	0.93	0.14	62,62,62,62	0
54	MG	1A	3989	1/1	0.93	0.06	28,28,28,28	0
54	MG	1A	3618	1/1	0.93	0.14	36,36,36,36	0
54	MG	1A	3102	1/1	0.93	0.12	46,46,46,46	0
54	MG	2A	3205	1/1	0.93	0.23	59,59,59,59	0
54	MG	1A	3847	1/1	0.93	0.11	48,48,48,48	0
54	MG	1A	3425	1/1	0.93	0.07	27,27,27,27	0
54	MG	2A	3211	1/1	0.93	0.17	73,73,73,73	0
54	MG	1a	1715	1/1	0.93	0.31	76,76,76,76	0
54	MG	1A	3105	1/1	0.93	0.10	60,60,60,60	0
54	MG	2a	3043	1/1	0.93	0.28	66,66,66,66	0
54	MG	1a	1864	1/1	0.93	0.14	65,65,65,65	0
54	MG	1a	1717	1/1	0.93	0.16	66,66,66,66	0
54	MG	1A	3999	1/1	0.93	0.14	34,34,34,34	0
54	MG	1a	1869	1/1	0.93	0.10	61,61,61,61	0
54	MG	2A	3221	1/1	0.93	0.17	58,58,58,58	0
54	MG	1A	3627	1/1	0.93	0.16	50,50,50,50	0
54	MG	1A	3860	1/1	0.93	0.07	47,47,47,47	0
54	MG	1a	1724	1/1	0.93	0.19	65,65,65,65	0
54	MG	1A	3064	1/1	0.93	0.08	41,41,41,41	0
54	MG	2A	3485	1/1	0.93	0.12	61,61,61,61	0
54	MG	2a	3056	1/1	0.93	0.09	69,69,69,69	0
54	MG	18	102	1/1	0.93	0.09	65,65,65,65	0
54	MG	1A	3008	1/1	0.93	0.08	45,45,45,45	0
54	MG	1A	3631	1/1	0.93	0.06	36,36,36,36	0
54	MG	1A	3370	1/1	0.93	0.09	34,34,34,34	0
54	MG	1A	3436	1/1	0.93	0.06	35,35,35,35	0
54	MG	2A	3244	1/1	0.93	0.16	52,52,52,52	0
54	MG	1a	1605	1/1	0.93	0.29	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3499	1/1	0.93	0.12	52,52,52,52	0
54	MG	1A	4015	1/1	0.93	0.07	59,59,59,59	0
54	MG	1A	3573	1/1	0.93	0.08	49,49,49,49	0
54	MG	2a	3070	1/1	0.93	0.09	71,71,71,71	0
54	MG	1e	202	1/1	0.93	0.13	61,61,61,61	0
54	MG	1a	1608	1/1	0.93	0.12	63,63,63,63	0
54	MG	1A	3726	1/1	0.93	0.10	63,63,63,63	0
54	MG	1f	202	1/1	0.93	0.13	55,55,55,55	0
54	MG	2A	3513	1/1	0.93	0.07	50,50,50,50	0
54	MG	1A	3189	1/1	0.93	0.12	48,48,48,48	0
54	MG	1g	203	1/1	0.93	0.09	73,73,73,73	0
54	MG	2a	3080	1/1	0.93	0.14	57,57,57,57	0
54	MG	1A	4021	1/1	0.93	0.13	56,56,56,56	0
54	MG	2A	3519	1/1	0.93	0.13	58,58,58,58	0
54	MG	2a	3084	1/1	0.93	0.30	66,66,66,66	0
54	MG	1a	1748	1/1	0.93	0.12	62,62,62,62	0
54	MG	1A	3312	1/1	0.93	0.14	38,38,38,38	0
54	MG	1a	1752	1/1	0.93	0.09	65,65,65,65	0
54	MG	2a	3088	1/1	0.93	0.18	57,57,57,57	0
54	MG	2A	3529	1/1	0.93	0.11	67,67,67,67	0
54	MG	1A	3734	1/1	0.93	0.06	74,74,74,74	0
54	MG	2A	3534	1/1	0.93	0.09	42,42,42,42	0
54	MG	1A	3736	1/1	0.93	0.15	56,56,56,56	0
54	MG	1A	3499	1/1	0.93	0.14	35,35,35,35	0
54	MG	2A	3538	1/1	0.93	0.13	65,65,65,65	0
54	MG	1o	102	1/1	0.93	0.19	56,56,56,56	0
54	MG	2A	3540	1/1	0.93	0.07	48,48,48,48	0
54	MG	1A	3440	1/1	0.93	0.11	43,43,43,43	0
54	MG	1A	3093	1/1	0.93	0.13	56,56,56,56	0
54	MG	2A	3548	1/1	0.93	0.12	38,38,38,38	0
54	MG	1a	1628	1/1	0.93	0.09	61,61,61,61	0
54	MG	2A	3002	1/1	0.93	0.10	56,56,56,56	0
54	MG	2A	3291	1/1	0.93	0.12	47,47,47,47	0
54	MG	2A	3293	1/1	0.93	0.12	50,50,50,50	0
54	MG	2A	3295	1/1	0.93	0.20	59,59,59,59	0
54	MG	1A	3649	1/1	0.93	0.15	68,68,68,68	0
54	MG	1A	3756	1/1	0.93	0.15	56,56,56,56	0
54	MG	1A	3651	1/1	0.93	0.11	45,45,45,45	0
54	MG	1B	210	1/1	0.93	0.06	63,63,63,63	0
54	MG	1A	3317	1/1	0.93	0.24	41,41,41,41	0
54	MG	1a	1635	1/1	0.93	0.10	38,38,38,38	0
54	MG	2A	3311	1/1	0.93	0.09	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3586	1/1	0.93	0.10	42,42,42,42	0
54	MG	2A	3314	1/1	0.93	0.14	69,69,69,69	0
54	MG	2a	3130	1/1	0.93	0.11	71,71,71,71	0
54	MG	2A	3567	1/1	0.93	0.10	80,80,80,80	0
54	MG	1A	3193	1/1	0.93	0.17	44,44,44,44	0
54	MG	1A	3657	1/1	0.93	0.10	60,60,60,60	0
54	MG	2A	3033	1/1	0.93	0.19	60,60,60,60	0
54	MG	2A	3572	1/1	0.93	0.09	61,61,61,61	0
54	MG	2A	3321	1/1	0.93	0.10	51,51,51,51	0
54	MG	2A	3574	1/1	0.93	0.09	75,75,75,75	0
54	MG	2A	3575	1/1	0.93	0.11	75,75,75,75	0
54	MG	2A	3577	1/1	0.93	0.08	75,75,75,75	0
54	MG	2a	3144	1/1	0.93	0.17	78,78,78,78	0
54	MG	1A	3047	1/1	0.93	0.21	58,58,58,58	0
54	MG	1A	3589	1/1	0.93	0.11	29,29,29,29	0
54	MG	2A	3040	1/1	0.93	0.11	47,47,47,47	0
54	MG	1A	3519	1/1	0.93	0.08	53,53,53,53	0
54	MG	2A	3044	1/1	0.93	0.11	53,53,53,53	0
54	MG	2a	3153	1/1	0.93	0.16	85,85,85,85	0
54	MG	1A	3451	1/1	0.93	0.19	61,61,61,61	0
54	MG	2A	3603	1/1	0.93	0.14	79,79,79,79	0
54	MG	2a	3157	1/1	0.93	0.19	66,66,66,66	0
54	MG	1A	3777	1/1	0.93	0.17	67,67,67,67	0
54	MG	1a	1776	1/1	0.93	0.16	68,68,68,68	0
54	MG	1A	3779	1/1	0.93	0.07	29,29,29,29	0
54	MG	2A	3620	1/1	0.93	0.10	47,47,47,47	0
54	MG	1A	3039	1/1	0.93	0.11	54,54,54,54	0
54	MG	2A	3340	1/1	0.93	0.08	60,60,60,60	0
54	MG	2A	3625	1/1	0.93	0.10	72,72,72,72	0
54	MG	1A	3782	1/1	0.93	0.07	36,36,36,36	0
54	MG	2A	3344	1/1	0.93	0.11	57,57,57,57	0
54	MG	2a	3173	1/1	0.93	0.18	63,63,63,63	0
54	MG	2a	3176	1/1	0.93	0.12	68,68,68,68	0
54	MG	2a	3178	1/1	0.93	0.17	73,73,73,73	0
54	MG	2a	3179	1/1	0.93	0.11	68,68,68,68	0
54	MG	2A	3629	1/1	0.93	0.09	39,39,39,39	0
54	MG	2A	3345	1/1	0.93	0.07	45,45,45,45	0
54	MG	2A	3348	1/1	0.93	0.11	54,54,54,54	0
54	MG	1A	3784	1/1	0.93	0.06	38,38,38,38	0
54	MG	1A	3938	1/1	0.93	0.10	59,59,59,59	0
54	MG	2A	3060	1/1	0.93	0.19	65,65,65,65	0
54	MG	2A	3638	1/1	0.93	0.10	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3941	1/1	0.93	0.09	65,65,65,65	0
54	MG	2A	3066	1/1	0.93	0.10	56,56,56,56	0
54	MG	1D	314	1/1	0.93	0.17	70,70,70,70	0
54	MG	2A	3646	1/1	0.93	0.07	71,71,71,71	0
54	MG	1A	3326	1/1	0.93	0.09	43,43,43,43	0
54	MG	1E	307	1/1	0.93	0.10	26,26,26,26	0
54	MG	2A	3651	1/1	0.93	0.19	65,65,65,65	0
54	MG	1A	3394	1/1	0.93	0.17	72,72,72,72	0
54	MG	2A	3656	1/1	0.93	0.10	39,39,39,39	0
57	MPD	1T	205	8/8	0.93	0.15	65,69,78,79	0
54	MG	1F	308	1/1	0.93	0.22	59,59,59,59	0
54	MG	2A	3365	1/1	0.93	0.11	66,66,66,66	0
54	MG	1a	1797	1/1	0.93	0.14	71,71,71,71	0
54	MG	2A	3091	1/1	0.93	0.08	57,57,57,57	0
58	ARG	1B	230	12/12	0.93	0.12	39,54,61,64	0
54	MG	1A	3597	1/1	0.93	0.07	47,47,47,47	0
54	MG	1A	3954	1/1	0.94	0.07	47,47,47,47	0
54	MG	2A	3107	1/1	0.94	0.15	59,59,59,59	0
54	MG	2A	3108	1/1	0.94	0.17	66,66,66,66	0
54	MG	1A	3564	1/1	0.94	0.14	32,32,32,32	0
54	MG	1A	3565	1/1	0.94	0.08	37,37,37,37	0
54	MG	1A	3811	1/1	0.94	0.09	68,68,68,68	0
54	MG	1A	3489	1/1	0.94	0.14	58,58,58,58	0
54	MG	1A	3135	1/1	0.94	0.08	50,50,50,50	0
54	MG	2A	3125	1/1	0.94	0.15	56,56,56,56	0
54	MG	1a	1680	1/1	0.94	0.10	55,55,55,55	0
54	MG	2A	3398	1/1	0.94	0.14	68,68,68,68	0
54	MG	2A	3130	1/1	0.94	0.12	55,55,55,55	0
54	MG	1a	1819	1/1	0.94	0.08	60,60,60,60	0
54	MG	2A	3135	1/1	0.94	0.10	64,64,64,64	0
54	MG	1A	3630	1/1	0.94	0.09	58,58,58,58	0
54	MG	1Q	202	1/1	0.94	0.07	37,37,37,37	0
54	MG	2D	304	1/1	0.94	0.13	44,44,44,44	0
54	MG	2A	3404	1/1	0.94	0.09	62,62,62,62	0
54	MG	1Q	205	1/1	0.94	0.10	54,54,54,54	0
54	MG	1A	3288	1/1	0.94	0.08	61,61,61,61	0
54	MG	1A	3334	1/1	0.94	0.26	60,60,60,60	0
54	MG	2F	301	1/1	0.94	0.12	45,45,45,45	0
54	MG	2F	302	1/1	0.94	0.10	55,55,55,55	0
54	MG	1A	3970	1/1	0.94	0.12	50,50,50,50	0
54	MG	1A	3825	1/1	0.94	0.08	64,64,64,64	0
54	MG	2O	3701	1/1	0.94	0.17	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3145	1/1	0.94	0.10	66,66,66,66	0
54	MG	1a	1691	1/1	0.94	0.15	61,61,61,61	0
54	MG	1A	3496	1/1	0.94	0.11	35,35,35,35	0
54	MG	1U	209	1/1	0.94	0.12	61,61,61,61	0
54	MG	2A	3153	1/1	0.94	0.33	71,71,71,71	0
54	MG	1a	1834	1/1	0.94	0.16	71,71,71,71	0
54	MG	1A	3832	1/1	0.94	0.08	21,21,21,21	0
54	MG	2V	201	1/1	0.94	0.15	59,59,59,59	0
54	MG	1A	3833	1/1	0.94	0.22	39,39,39,39	0
54	MG	1W	201	1/1	0.94	0.11	41,41,41,41	0
54	MG	1W	202	1/1	0.94	0.09	45,45,45,45	0
54	MG	1A	3247	1/1	0.94	0.16	60,60,60,60	0
54	MG	23	101	1/1	0.94	0.09	57,57,57,57	0
54	MG	28	102	1/1	0.94	0.22	62,62,62,62	0
54	MG	2A	3434	1/1	0.94	0.10	52,52,52,52	0
54	MG	2A	3164	1/1	0.94	0.08	60,60,60,60	0
54	MG	1A	3640	1/1	0.94	0.13	58,58,58,58	0
54	MG	1A	3839	1/1	0.94	0.10	57,57,57,57	0
54	MG	1A	3986	1/1	0.94	0.11	57,57,57,57	0
54	MG	2A	3169	1/1	0.94	0.12	41,41,41,41	0
54	MG	1A	3841	1/1	0.94	0.10	48,48,48,48	0
54	MG	2A	3172	1/1	0.94	0.26	46,46,46,46	0
54	MG	1A	3501	1/1	0.94	0.06	29,29,29,29	0
54	MG	1A	3341	1/1	0.94	0.11	40,40,40,40	0
54	MG	1a	1852	1/1	0.94	0.09	48,48,48,48	0
54	MG	1A	3845	1/1	0.94	0.17	58,58,58,58	0
54	MG	1a	1709	1/1	0.94	0.35	74,74,74,74	0
54	MG	2A	3181	1/1	0.94	0.11	64,64,64,64	0
54	MG	2A	3183	1/1	0.94	0.22	54,54,54,54	0
54	MG	1a	1858	1/1	0.94	0.08	66,66,66,66	0
54	MG	2A	3454	1/1	0.94	0.07	66,66,66,66	0
54	MG	1A	3991	1/1	0.94	0.07	81,81,81,81	0
54	MG	1a	1860	1/1	0.94	0.10	56,56,56,56	0
54	MG	1A	3342	1/1	0.94	0.08	52,52,52,52	0
54	MG	1A	3994	1/1	0.94	0.08	60,60,60,60	0
54	MG	1A	3343	1/1	0.94	0.14	60,60,60,60	0
54	MG	2a	3031	1/1	0.94	0.13	66,66,66,66	0
54	MG	1A	3512	1/1	0.94	0.06	65,65,65,65	0
54	MG	1a	1866	1/1	0.94	0.14	74,74,74,74	0
54	MG	1A	3202	1/1	0.94	0.09	57,57,57,57	0
54	MG	1A	3187	1/1	0.94	0.23	47,47,47,47	0
54	MG	2A	3206	1/1	0.94	0.16	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1719	1/1	0.94	0.11	74,74,74,74	0
54	MG	1A	3735	1/1	0.94	0.06	33,33,33,33	0
54	MG	1a	1721	1/1	0.94	0.17	69,69,69,69	0
54	MG	17	104	1/1	0.94	0.16	59,59,59,59	0
54	MG	18	101	1/1	0.94	0.31	40,40,40,40	0
54	MG	1A	3517	1/1	0.94	0.07	43,43,43,43	0
54	MG	1a	1726	1/1	0.94	0.13	77,77,77,77	0
54	MG	1a	1879	1/1	0.94	0.14	72,72,72,72	0
54	MG	1A	3737	1/1	0.94	0.11	57,57,57,57	0
54	MG	1A	3347	1/1	0.94	0.12	32,32,32,32	0
54	MG	2A	3222	1/1	0.94	0.07	41,41,41,41	0
54	MG	2A	3223	1/1	0.94	0.08	55,55,55,55	0
54	MG	1a	1734	1/1	0.94	0.07	62,62,62,62	0
54	MG	1A	4005	1/1	0.94	0.16	31,31,31,31	0
54	MG	2A	3492	1/1	0.94	0.07	50,50,50,50	0
54	MG	2A	3493	1/1	0.94	0.07	74,74,74,74	0
54	MG	2A	3231	1/1	0.94	0.16	40,40,40,40	0
54	MG	1A	3868	1/1	0.94	0.09	55,55,55,55	0
54	MG	1e	201	1/1	0.94	0.13	52,52,52,52	0
54	MG	1A	3405	1/1	0.94	0.08	38,38,38,38	0
54	MG	1A	3871	1/1	0.94	0.14	49,49,49,49	0
54	MG	1A	4014	1/1	0.94	0.09	53,53,53,53	0
54	MG	1A	3743	1/1	0.94	0.09	65,65,65,65	0
54	MG	1A	3873	1/1	0.94	0.07	34,34,34,34	0
54	MG	1A	3348	1/1	0.94	0.20	58,58,58,58	0
54	MG	1A	3136	1/1	0.94	0.26	46,46,46,46	0
54	MG	1A	3084	1/1	0.94	0.11	52,52,52,52	0
54	MG	2A	3510	1/1	0.94	0.08	67,67,67,67	0
54	MG	1a	1617	1/1	0.94	0.10	81,81,81,81	0
54	MG	2a	3073	1/1	0.94	0.09	62,62,62,62	0
54	MG	1a	1618	1/1	0.94	0.09	69,69,69,69	0
54	MG	1A	4022	1/1	0.94	0.09	51,51,51,51	0
54	MG	1m	201	1/1	0.94	0.11	71,71,71,71	0
54	MG	2A	3254	1/1	0.94	0.16	60,60,60,60	0
54	MG	1a	1620	1/1	0.94	0.11	56,56,56,56	0
54	MG	1A	3878	1/1	0.94	0.07	44,44,44,44	0
54	MG	1a	1623	1/1	0.94	0.08	57,57,57,57	0
54	MG	2A	3262	1/1	0.94	0.10	57,57,57,57	0
54	MG	2a	3083	1/1	0.94	0.23	68,68,68,68	0
54	MG	1A	3757	1/1	0.94	0.13	55,55,55,55	0
54	MG	1A	4025	1/1	0.94	0.08	55,55,55,55	0
54	MG	2A	3272	1/1	0.94	0.09	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3466	1/1	0.94	0.07	55,55,55,55	0
54	MG	2A	3001	1/1	0.94	0.26	64,64,64,64	0
54	MG	1A	3413	1/1	0.94	0.08	42,42,42,42	0
54	MG	2A	3277	1/1	0.94	0.11	40,40,40,40	0
54	MG	2a	3091	1/1	0.94	0.22	52,52,52,52	0
54	MG	1A	3470	1/1	0.94	0.09	64,64,64,64	0
54	MG	1A	3086	1/1	0.94	0.21	40,40,40,40	0
54	MG	2A	3285	1/1	0.94	0.09	43,43,43,43	0
54	MG	2a	3097	1/1	0.94	0.14	64,64,64,64	0
54	MG	1A	3891	1/1	0.94	0.08	67,67,67,67	0
54	MG	1a	1765	1/1	0.94	0.11	60,60,60,60	0
54	MG	1A	3768	1/1	0.94	0.07	50,50,50,50	0
54	MG	2A	3551	1/1	0.94	0.12	54,54,54,54	0
54	MG	2a	3104	1/1	0.94	0.09	54,54,54,54	0
54	MG	2a	3105	1/1	0.94	0.11	72,72,72,72	0
54	MG	1A	3424	1/1	0.94	0.13	65,65,65,65	0
54	MG	2A	3018	1/1	0.94	0.37	45,45,45,45	0
54	MG	2A	3019	1/1	0.94	0.12	58,58,58,58	0
54	MG	2A	3022	1/1	0.94	0.14	58,58,58,58	0
54	MG	2a	3111	1/1	0.94	0.12	69,69,69,69	0
54	MG	2a	3113	1/1	0.94	0.19	81,81,81,81	0
54	MG	2A	3023	1/1	0.94	0.22	64,64,64,64	0
54	MG	1A	3209	1/1	0.94	0.24	45,45,45,45	0
54	MG	1a	1636	1/1	0.94	0.11	57,57,57,57	0
54	MG	1A	3152	1/1	0.94	0.09	39,39,39,39	0
54	MG	2A	3304	1/1	0.94	0.17	61,61,61,61	0
54	MG	2A	3305	1/1	0.94	0.07	56,56,56,56	0
54	MG	2a	3121	1/1	0.94	0.11	70,70,70,70	0
54	MG	1A	3430	1/1	0.94	0.07	43,43,43,43	0
54	MG	1A	3212	1/1	0.94	0.20	39,39,39,39	0
54	MG	2A	3035	1/1	0.94	0.17	67,67,67,67	0
54	MG	1A	3898	1/1	0.94	0.14	39,39,39,39	0
54	MG	2A	3038	1/1	0.94	0.11	57,57,57,57	0
54	MG	1A	3899	1/1	0.94	0.13	36,36,36,36	0
54	MG	2A	3315	1/1	0.94	0.07	66,66,66,66	0
54	MG	2A	3316	1/1	0.94	0.09	63,63,63,63	0
54	MG	1a	1643	1/1	0.94	0.11	79,79,79,79	0
54	MG	1A	3606	1/1	0.94	0.11	49,49,49,49	0
54	MG	2A	3045	1/1	0.94	0.19	68,68,68,68	0
54	MG	2A	3579	1/1	0.94	0.11	69,69,69,69	0
54	MG	2a	3137	1/1	0.94	0.10	59,59,59,59	0
54	MG	1A	3778	1/1	0.94	0.10	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3587	1/1	0.94	0.17	64,64,64,64	0
54	MG	1A	3545	1/1	0.94	0.10	47,47,47,47	0
54	MG	2a	3142	1/1	0.94	0.08	66,66,66,66	0
54	MG	2A	3592	1/1	0.94	0.08	59,59,59,59	0
54	MG	1A	3679	1/1	0.94	0.08	55,55,55,55	0
54	MG	2A	3597	1/1	0.94	0.11	39,39,39,39	0
54	MG	1a	1786	1/1	0.94	0.08	67,67,67,67	0
54	MG	1A	3172	1/1	0.94	0.11	55,55,55,55	0
54	MG	2a	3150	1/1	0.94	0.08	69,69,69,69	0
54	MG	1A	3195	1/1	0.94	0.07	59,59,59,59	0
54	MG	1A	3012	1/1	0.94	0.15	42,42,42,42	0
54	MG	1A	3686	1/1	0.94	0.10	70,70,70,70	0
54	MG	1a	1656	1/1	0.94	0.23	68,68,68,68	0
54	MG	1a	1793	1/1	0.94	0.11	66,66,66,66	0
54	MG	2A	3615	1/1	0.94	0.08	72,72,72,72	0
54	MG	2A	3616	1/1	0.94	0.08	53,53,53,53	0
54	MG	2A	3617	1/1	0.94	0.09	42,42,42,42	0
54	MG	2A	3334	1/1	0.94	0.18	55,55,55,55	0
54	MG	1A	3687	1/1	0.94	0.08	56,56,56,56	0
54	MG	2A	3338	1/1	0.94	0.10	44,44,44,44	0
54	MG	2A	3624	1/1	0.94	0.13	66,66,66,66	0
54	MG	2A	3073	1/1	0.94	0.15	60,60,60,60	0
54	MG	2A	3076	1/1	0.94	0.09	52,52,52,52	0
54	MG	2A	3342	1/1	0.94	0.09	46,46,46,46	0
54	MG	1A	3688	1/1	0.94	0.09	57,57,57,57	0
54	MG	1A	3936	1/1	0.94	0.07	40,40,40,40	0
54	MG	2a	3177	1/1	0.94	0.10	64,64,64,64	0
54	MG	2A	3347	1/1	0.94	0.11	64,64,64,64	0
54	MG	1A	3484	1/1	0.94	0.07	59,59,59,59	0
54	MG	2A	3081	1/1	0.94	0.07	70,70,70,70	0
54	MG	2A	3350	1/1	0.94	0.12	66,66,66,66	0
54	MG	2A	3082	1/1	0.94	0.13	52,52,52,52	0
54	MG	2a	3184	1/1	0.94	0.31	66,66,66,66	0
54	MG	2A	3639	1/1	0.94	0.12	74,74,74,74	0
54	MG	2A	3641	1/1	0.94	0.16	69,69,69,69	0
54	MG	1A	3177	1/1	0.94	0.15	28,28,28,28	0
54	MG	2A	3643	1/1	0.94	0.10	76,76,76,76	0
54	MG	1A	3617	1/1	0.94	0.12	61,61,61,61	0
54	MG	1A	3554	1/1	0.94	0.06	25,25,25,25	0
54	MG	1a	1801	1/1	0.94	0.11	60,60,60,60	0
54	MG	2A	3092	1/1	0.94	0.07	77,77,77,77	0
54	MG	2A	3093	1/1	0.94	0.20	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3361	1/1	0.94	0.07	35,35,35,35	0
54	MG	1A	3557	1/1	0.94	0.07	37,37,37,37	0
54	MG	1A	3696	1/1	0.94	0.14	60,60,60,60	0
56	ERY	1A	4027	51/51	0.94	0.11	37,52,58,63	0
56	ERY	2A	3672	51/51	0.94	0.14	43,60,66,72	0
54	MG	1A	3947	1/1	0.94	0.07	67,67,67,67	0
54	MG	1A	3698	1/1	0.94	0.08	37,37,37,37	0
57	MPD	18	103	8/8	0.94	0.12	35,42,47,49	0
54	MG	2A	3369	1/1	0.94	0.14	59,59,59,59	0
54	MG	2A	3099	1/1	0.94	0.15	53,53,53,53	0
54	MG	2A	3374	1/1	0.94	0.13	69,69,69,69	0
54	MG	2A	3100	1/1	0.94	0.18	40,40,40,40	0
54	MG	1A	3951	1/1	0.94	0.12	62,62,62,62	0
54	MG	1A	3154	1/1	0.94	0.10	63,63,63,63	0
54	MG	1B	215	1/1	0.95	0.16	65,65,65,65	0
54	MG	2A	3376	1/1	0.95	0.12	62,62,62,62	0
54	MG	1A	3244	1/1	0.95	0.24	60,60,60,60	0
54	MG	1A	3542	1/1	0.95	0.11	50,50,50,50	0
54	MG	2A	3129	1/1	0.95	0.32	62,62,62,62	0
54	MG	1A	3002	1/1	0.95	0.11	52,52,52,52	0
54	MG	2A	3131	1/1	0.95	0.14	49,49,49,49	0
54	MG	1A	3131	1/1	0.95	0.15	58,58,58,58	0
54	MG	2A	3387	1/1	0.95	0.09	41,41,41,41	0
54	MG	2A	3133	1/1	0.95	0.13	50,50,50,50	0
54	MG	2B	203	1/1	0.95	0.17	59,59,59,59	0
54	MG	1A	3134	1/1	0.95	0.06	46,46,46,46	0
54	MG	2A	3390	1/1	0.95	0.11	66,66,66,66	0
54	MG	1A	3198	1/1	0.95	0.20	59,59,59,59	0
54	MG	1A	3052	1/1	0.95	0.18	43,43,43,43	0
54	MG	1A	3633	1/1	0.95	0.07	29,29,29,29	0
54	MG	2B	210	1/1	0.95	0.15	71,71,71,71	0
54	MG	1A	3393	1/1	0.95	0.07	57,57,57,57	0
54	MG	2A	3397	1/1	0.95	0.06	72,72,72,72	0
54	MG	1A	3636	1/1	0.95	0.12	52,52,52,52	0
54	MG	1A	3744	1/1	0.95	0.08	38,38,38,38	0
54	MG	2D	303	1/1	0.95	0.18	62,62,62,62	0
54	MG	1D	309	1/1	0.95	0.10	53,53,53,53	0
54	MG	1a	1829	1/1	0.95	0.09	66,66,66,66	0
54	MG	2D	306	1/1	0.95	0.06	32,32,32,32	0
54	MG	1A	3552	1/1	0.95	0.16	29,29,29,29	0
54	MG	1A	3746	1/1	0.95	0.14	46,46,46,46	0
54	MG	1A	3017	1/1	0.95	0.20	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3405	1/1	0.95	0.07	67,67,67,67	0
54	MG	2A	3406	1/1	0.95	0.09	38,38,38,38	0
54	MG	2A	3152	1/1	0.95	0.16	57,57,57,57	0
54	MG	1A	3137	1/1	0.95	0.13	36,36,36,36	0
54	MG	1a	1677	1/1	0.95	0.12	70,70,70,70	0
54	MG	2P	201	1/1	0.95	0.07	70,70,70,70	0
54	MG	2A	3155	1/1	0.95	0.09	55,55,55,55	0
54	MG	1A	3396	1/1	0.95	0.07	48,48,48,48	0
54	MG	1A	3760	1/1	0.95	0.10	31,31,31,31	0
54	MG	1A	3559	1/1	0.95	0.13	53,53,53,53	0
54	MG	1F	305	1/1	0.95	0.08	40,40,40,40	0
54	MG	1a	1841	1/1	0.95	0.08	64,64,64,64	0
54	MG	1A	3646	1/1	0.95	0.07	48,48,48,48	0
54	MG	1a	1843	1/1	0.95	0.07	49,49,49,49	0
54	MG	2A	3424	1/1	0.95	0.10	49,49,49,49	0
54	MG	1A	3561	1/1	0.95	0.14	45,45,45,45	0
54	MG	20	101	1/1	0.95	0.12	57,57,57,57	0
54	MG	2A	3426	1/1	0.95	0.08	61,61,61,61	0
54	MG	1A	3765	1/1	0.95	0.06	58,58,58,58	0
54	MG	1a	1846	1/1	0.95	0.10	77,77,77,77	0
54	MG	25	101	1/1	0.95	0.16	49,49,49,49	0
54	MG	1A	3910	1/1	0.95	0.07	52,52,52,52	0
54	MG	1A	3329	1/1	0.95	0.12	60,60,60,60	0
54	MG	1A	3563	1/1	0.95	0.16	70,70,70,70	0
54	MG	1a	1690	1/1	0.95	0.26	73,73,73,73	0
54	MG	1A	3398	1/1	0.95	0.10	50,50,50,50	0
54	MG	1A	3399	1/1	0.95	0.15	63,63,63,63	0
54	MG	1A	3567	1/1	0.95	0.08	43,43,43,43	0
54	MG	1A	3923	1/1	0.95	0.08	47,47,47,47	0
54	MG	2A	3182	1/1	0.95	0.18	58,58,58,58	0
54	MG	1a	1695	1/1	0.95	0.12	57,57,57,57	0
54	MG	1A	3926	1/1	0.95	0.07	53,53,53,53	0
54	MG	2A	3186	1/1	0.95	0.07	46,46,46,46	0
54	MG	2a	3015	1/1	0.95	0.12	59,59,59,59	0
54	MG	2A	3446	1/1	0.95	0.11	66,66,66,66	0
54	MG	1A	3655	1/1	0.95	0.09	57,57,57,57	0
54	MG	2a	3019	1/1	0.95	0.16	55,55,55,55	0
54	MG	2A	3191	1/1	0.95	0.08	36,36,36,36	0
54	MG	1O	201	1/1	0.95	0.07	61,61,61,61	0
54	MG	2A	3450	1/1	0.95	0.07	38,38,38,38	0
54	MG	2A	3193	1/1	0.95	0.20	47,47,47,47	0
54	MG	1A	3138	1/1	0.95	0.06	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3197	1/1	0.95	0.31	61,61,61,61	0
54	MG	1A	3333	1/1	0.95	0.11	37,37,37,37	0
54	MG	1A	3178	1/1	0.95	0.18	57,57,57,57	0
54	MG	1a	1868	1/1	0.95	0.09	51,51,51,51	0
54	MG	1Q	203	1/1	0.95	0.12	55,55,55,55	0
54	MG	1a	1870	1/1	0.95	0.12	59,59,59,59	0
54	MG	2A	3204	1/1	0.95	0.24	62,62,62,62	0
54	MG	1a	1704	1/1	0.95	0.27	66,66,66,66	0
54	MG	1A	3404	1/1	0.95	0.05	34,34,34,34	0
54	MG	1A	3939	1/1	0.95	0.16	54,54,54,54	0
54	MG	2A	3209	1/1	0.95	0.10	57,57,57,57	0
54	MG	1A	3335	1/1	0.95	0.27	60,60,60,60	0
54	MG	1A	3336	1/1	0.95	0.10	40,40,40,40	0
54	MG	2a	3041	1/1	0.95	0.21	68,68,68,68	0
54	MG	2A	3212	1/1	0.95	0.07	60,60,60,60	0
54	MG	1A	3179	1/1	0.95	0.13	37,37,37,37	0
54	MG	2A	3470	1/1	0.95	0.14	50,50,50,50	0
54	MG	2a	3045	1/1	0.95	0.11	75,75,75,75	0
54	MG	1A	3785	1/1	0.95	0.08	26,26,26,26	0
54	MG	1U	204	1/1	0.95	0.19	59,59,59,59	0
54	MG	2A	3476	1/1	0.95	0.07	65,65,65,65	0
54	MG	2a	3049	1/1	0.95	0.17	75,75,75,75	0
54	MG	2A	3217	1/1	0.95	0.12	45,45,45,45	0
54	MG	1A	3340	1/1	0.95	0.06	38,38,38,38	0
54	MG	2A	3479	1/1	0.95	0.07	60,60,60,60	0
54	MG	1A	3580	1/1	0.95	0.21	39,39,39,39	0
54	MG	1A	3581	1/1	0.95	0.07	23,23,23,23	0
54	MG	1V	206	1/1	0.95	0.06	66,66,66,66	0
54	MG	1A	3791	1/1	0.95	0.10	49,49,49,49	0
54	MG	1A	3490	1/1	0.95	0.07	23,23,23,23	0
54	MG	2a	3058	1/1	0.95	0.10	58,58,58,58	0
54	MG	1A	3794	1/1	0.95	0.13	56,56,56,56	0
54	MG	1A	3673	1/1	0.95	0.09	49,49,49,49	0
54	MG	10	102	1/1	0.95	0.20	44,44,44,44	0
54	MG	1a	1723	1/1	0.95	0.22	64,64,64,64	0
54	MG	1g	201	1/1	0.95	0.25	69,69,69,69	0
54	MG	1A	3069	1/1	0.95	0.12	44,44,44,44	0
54	MG	2a	3065	1/1	0.95	0.17	61,61,61,61	0
54	MG	10	104	1/1	0.95	0.06	53,53,53,53	0
54	MG	1A	3419	1/1	0.95	0.09	31,31,31,31	0
54	MG	1A	3494	1/1	0.95	0.06	32,32,32,32	0
54	MG	2a	3069	1/1	0.95	0.12	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3275	1/1	0.95	0.08	48,48,48,48	0
54	MG	1a	1731	1/1	0.95	0.10	55,55,55,55	0
54	MG	1a	1733	1/1	0.95	0.14	67,67,67,67	0
54	MG	2A	3246	1/1	0.95	0.10	32,32,32,32	0
54	MG	1A	3965	1/1	0.95	0.08	65,65,65,65	0
54	MG	2a	3075	1/1	0.95	0.24	61,61,61,61	0
54	MG	1A	3142	1/1	0.95	0.07	49,49,49,49	0
54	MG	1A	3967	1/1	0.95	0.13	67,67,67,67	0
54	MG	1A	3498	1/1	0.95	0.06	28,28,28,28	0
54	MG	2A	3252	1/1	0.95	0.08	52,52,52,52	0
54	MG	1A	3805	1/1	0.95	0.06	47,47,47,47	0
54	MG	2A	3516	1/1	0.95	0.07	66,66,66,66	0
54	MG	1A	3806	1/1	0.95	0.10	38,38,38,38	0
54	MG	1A	3682	1/1	0.95	0.13	38,38,38,38	0
54	MG	1A	3186	1/1	0.95	0.18	41,41,41,41	0
54	MG	1A	3809	1/1	0.95	0.08	53,53,53,53	0
54	MG	1A	3426	1/1	0.95	0.09	41,41,41,41	0
54	MG	2A	3263	1/1	0.95	0.14	66,66,66,66	0
54	MG	2A	3527	1/1	0.95	0.06	63,63,63,63	0
54	MG	2A	3528	1/1	0.95	0.08	69,69,69,69	0
54	MG	1a	1746	1/1	0.95	0.07	55,55,55,55	0
54	MG	2A	3270	1/1	0.95	0.07	44,44,44,44	0
54	MG	15	108	1/1	0.95	0.14	74,74,74,74	0
54	MG	2a	3093	1/1	0.95	0.18	63,63,63,63	0
54	MG	2A	3008	1/1	0.95	0.06	46,46,46,46	0
54	MG	2A	3010	1/1	0.95	0.12	74,74,74,74	0
54	MG	1A	3685	1/1	0.95	0.15	38,38,38,38	0
54	MG	2a	3098	1/1	0.95	0.29	63,63,63,63	0
54	MG	1A	3149	1/1	0.95	0.08	38,38,38,38	0
54	MG	1A	3503	1/1	0.95	0.07	23,23,23,23	0
54	MG	2A	3280	1/1	0.95	0.13	66,66,66,66	0
54	MG	1A	3070	1/1	0.95	0.19	42,42,42,42	0
54	MG	2A	3544	1/1	0.95	0.07	51,51,51,51	0
54	MG	2A	3546	1/1	0.95	0.10	51,51,51,51	0
54	MG	2A	3283	1/1	0.95	0.09	73,73,73,73	0
54	MG	1A	3073	1/1	0.95	0.06	40,40,40,40	0
54	MG	1a	1755	1/1	0.95	0.06	66,66,66,66	0
54	MG	2a	3109	1/1	0.95	0.06	62,62,62,62	0
54	MG	1A	3818	1/1	0.95	0.12	39,39,39,39	0
54	MG	1A	3352	1/1	0.95	0.11	20,20,20,20	0
54	MG	2A	3027	1/1	0.95	0.11	58,58,58,58	0
54	MG	1A	3824	1/1	0.95	0.07	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3029	1/1	0.95	0.09	46,46,46,46	0
54	MG	1A	3826	1/1	0.95	0.10	34,34,34,34	0
54	MG	1A	3191	1/1	0.95	0.11	43,43,43,43	0
54	MG	2A	3294	1/1	0.95	0.15	64,64,64,64	0
54	MG	1A	3828	1/1	0.95	0.07	38,38,38,38	0
54	MG	2a	3120	1/1	0.95	0.08	53,53,53,53	0
54	MG	2A	3561	1/1	0.95	0.07	72,72,72,72	0
54	MG	2A	3036	1/1	0.95	0.12	56,56,56,56	0
54	MG	1A	3030	1/1	0.95	0.06	30,30,30,30	0
54	MG	2A	3564	1/1	0.95	0.11	64,64,64,64	0
54	MG	1A	3438	1/1	0.95	0.13	37,37,37,37	0
54	MG	1A	3835	1/1	0.95	0.06	27,27,27,27	0
54	MG	1a	1614	1/1	0.95	0.22	33,33,33,33	0
54	MG	1A	3362	1/1	0.95	0.10	57,57,57,57	0
54	MG	1A	3699	1/1	0.95	0.16	67,67,67,67	0
54	MG	1A	3700	1/1	0.95	0.08	49,49,49,49	0
54	MG	2A	3309	1/1	0.95	0.07	72,72,72,72	0
54	MG	2A	3310	1/1	0.95	0.13	57,57,57,57	0
54	MG	1A	3298	1/1	0.95	0.11	38,38,38,38	0
54	MG	2A	3312	1/1	0.95	0.11	62,62,62,62	0
54	MG	2A	3576	1/1	0.95	0.06	57,57,57,57	0
54	MG	1A	4004	1/1	0.95	0.10	53,53,53,53	0
54	MG	1A	3524	1/1	0.95	0.06	28,28,28,28	0
54	MG	1A	3843	1/1	0.95	0.10	31,31,31,31	0
54	MG	2A	3586	1/1	0.95	0.06	54,54,54,54	0
54	MG	2A	3054	1/1	0.95	0.08	66,66,66,66	0
54	MG	2A	3588	1/1	0.95	0.09	53,53,53,53	0
54	MG	2a	3146	1/1	0.95	0.10	81,81,81,81	0
54	MG	1A	3366	1/1	0.95	0.10	56,56,56,56	0
54	MG	1a	1626	1/1	0.95	0.09	57,57,57,57	0
54	MG	1A	4010	1/1	0.95	0.07	48,48,48,48	0
54	MG	1A	4011	1/1	0.95	0.06	40,40,40,40	0
54	MG	2A	3061	1/1	0.95	0.12	55,55,55,55	0
54	MG	2A	3062	1/1	0.95	0.06	44,44,44,44	0
54	MG	1a	1780	1/1	0.95	0.11	65,65,65,65	0
54	MG	2A	3064	1/1	0.95	0.09	48,48,48,48	0
54	MG	2A	3605	1/1	0.95	0.10	67,67,67,67	0
54	MG	2a	3158	1/1	0.95	0.11	68,68,68,68	0
54	MG	1a	1781	1/1	0.95	0.10	47,47,47,47	0
54	MG	1a	1783	1/1	0.95	0.10	74,74,74,74	0
54	MG	1A	3704	1/1	0.95	0.10	67,67,67,67	0
54	MG	2A	3613	1/1	0.95	0.07	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2a	3165	1/1	0.95	0.11	64,64,64,64	0
54	MG	1A	3608	1/1	0.95	0.08	46,46,46,46	0
54	MG	2A	3332	1/1	0.95	0.08	47,47,47,47	0
54	MG	1A	3849	1/1	0.95	0.22	50,50,50,50	0
54	MG	2A	3619	1/1	0.95	0.07	78,78,78,78	0
54	MG	1A	3706	1/1	0.95	0.19	51,51,51,51	0
54	MG	1A	3226	1/1	0.95	0.14	39,39,39,39	0
54	MG	2A	3337	1/1	0.95	0.08	58,58,58,58	0
54	MG	1A	4019	1/1	0.95	0.07	49,49,49,49	0
54	MG	2A	3084	1/1	0.95	0.15	60,60,60,60	0
54	MG	1A	3708	1/1	0.95	0.10	49,49,49,49	0
54	MG	1a	1792	1/1	0.95	0.18	65,65,65,65	0
54	MG	1A	3856	1/1	0.95	0.09	37,37,37,37	0
54	MG	1A	3857	1/1	0.95	0.20	44,44,44,44	0
54	MG	1A	3858	1/1	0.95	0.09	57,57,57,57	0
54	MG	1A	3859	1/1	0.95	0.08	39,39,39,39	0
54	MG	1A	3300	1/1	0.95	0.09	52,52,52,52	0
54	MG	1A	3530	1/1	0.95	0.10	27,27,27,27	0
54	MG	2A	3096	1/1	0.95	0.07	49,49,49,49	0
54	MG	1A	3229	1/1	0.95	0.09	39,39,39,39	0
54	MG	2A	3640	1/1	0.95	0.13	61,61,61,61	0
54	MG	1B	203	1/1	0.95	0.08	56,56,56,56	0
54	MG	2A	3355	1/1	0.95	0.23	59,59,59,59	0
54	MG	2k	201	1/1	0.95	0.13	67,67,67,67	0
54	MG	1A	3373	1/1	0.95	0.07	24,24,24,24	0
54	MG	2A	3357	1/1	0.95	0.07	50,50,50,50	0
54	MG	1A	3866	1/1	0.95	0.08	56,56,56,56	0
54	MG	1a	1803	1/1	0.95	0.07	70,70,70,70	0
55	HGR	1A	4026	36/36	0.95	0.10	20,30,38,44	0
55	HGR	2A	3671	36/36	0.95	0.11	35,44,51,55	0
54	MG	2A	3647	1/1	0.95	0.11	61,61,61,61	0
54	MG	1a	1804	1/1	0.95	0.08	70,70,70,70	0
54	MG	1A	3374	1/1	0.95	0.09	40,40,40,40	0
54	MG	1A	3232	1/1	0.95	0.10	39,39,39,39	0
54	MG	1a	1650	1/1	0.95	0.17	52,52,52,52	0
54	MG	1a	1652	1/1	0.95	0.18	51,51,51,51	0
54	MG	1A	3021	1/1	0.95	0.22	43,43,43,43	0
54	MG	2A	3367	1/1	0.95	0.07	37,37,37,37	0
54	MG	1A	3456	1/1	0.95	0.16	62,62,62,62	0
54	MG	2A	3115	1/1	0.95	0.14	51,51,51,51	0
54	MG	1A	3623	1/1	0.95	0.16	32,32,32,32	0
54	MG	1A	3537	1/1	0.96	0.07	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3253	1/1	0.96	0.18	49,49,49,49	0
54	MG	1A	3034	1/1	0.96	0.07	54,54,54,54	0
54	MG	1A	3793	1/1	0.96	0.07	37,37,37,37	0
54	MG	2A	3088	1/1	0.96	0.09	51,51,51,51	0
54	MG	1A	3096	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3344	1/1	0.96	0.11	29,29,29,29	0
54	MG	1A	3143	1/1	0.96	0.10	46,46,46,46	0
54	MG	1a	1784	1/1	0.96	0.07	63,63,63,63	0
54	MG	1A	3020	1/1	0.96	0.30	47,47,47,47	0
54	MG	1A	3662	1/1	0.96	0.06	32,32,32,32	0
54	MG	2A	3654	1/1	0.96	0.07	53,53,53,53	0
54	MG	2A	3655	1/1	0.96	0.08	47,47,47,47	0
54	MG	1A	3075	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3971	1/1	0.96	0.12	48,48,48,48	0
54	MG	2A	3362	1/1	0.96	0.08	54,54,54,54	0
54	MG	1A	3260	1/1	0.96	0.08	50,50,50,50	0
54	MG	1a	1610	1/1	0.96	0.08	62,62,62,62	0
54	MG	2A	3101	1/1	0.96	0.08	42,42,42,42	0
54	MG	1A	3442	1/1	0.96	0.09	26,26,26,26	0
54	MG	1A	3977	1/1	0.96	0.08	63,63,63,63	0
54	MG	2A	3368	1/1	0.96	0.09	66,66,66,66	0
54	MG	1A	3350	1/1	0.96	0.07	28,28,28,28	0
54	MG	1A	3670	1/1	0.96	0.05	26,26,26,26	0
54	MG	1a	1615	1/1	0.96	0.07	63,63,63,63	0
54	MG	1a	1616	1/1	0.96	0.10	62,62,62,62	0
54	MG	1A	3076	1/1	0.96	0.04	34,34,34,34	0
54	MG	2A	3378	1/1	0.96	0.06	49,49,49,49	0
54	MG	1A	3449	1/1	0.96	0.12	44,44,44,44	0
54	MG	2A	3380	1/1	0.96	0.06	52,52,52,52	0
54	MG	2A	3381	1/1	0.96	0.09	58,58,58,58	0
54	MG	1A	3354	1/1	0.96	0.06	30,30,30,30	0
54	MG	1A	3558	1/1	0.96	0.07	30,30,30,30	0
54	MG	2A	3117	1/1	0.96	0.08	54,54,54,54	0
54	MG	2A	3121	1/1	0.96	0.06	58,58,58,58	0
54	MG	1a	1621	1/1	0.96	0.09	67,67,67,67	0
54	MG	2A	3124	1/1	0.96	0.25	72,72,72,72	0
54	MG	1A	3267	1/1	0.96	0.13	36,36,36,36	0
54	MG	2B	213	1/1	0.96	0.06	65,65,65,65	0
54	MG	1A	3812	1/1	0.96	0.08	48,48,48,48	0
54	MG	2A	3128	1/1	0.96	0.07	61,61,61,61	0
54	MG	1A	3103	1/1	0.96	0.25	41,41,41,41	0
54	MG	1A	3077	1/1	0.96	0.20	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3155	1/1	0.96	0.12	41,41,41,41	0
54	MG	1A	3455	1/1	0.96	0.05	21,21,21,21	0
54	MG	1A	3106	1/1	0.96	0.15	38,38,38,38	0
54	MG	1A	3457	1/1	0.96	0.08	50,50,50,50	0
54	MG	2E	304	1/1	0.96	0.13	43,43,43,43	0
54	MG	1A	3158	1/1	0.96	0.25	45,45,45,45	0
54	MG	1A	3459	1/1	0.96	0.08	60,60,60,60	0
54	MG	1A	3367	1/1	0.96	0.09	35,35,35,35	0
54	MG	1A	3278	1/1	0.96	0.10	60,60,60,60	0
54	MG	1A	3109	1/1	0.96	0.08	42,42,42,42	0
54	MG	2A	3141	1/1	0.96	0.09	54,54,54,54	0
54	MG	1A	3831	1/1	0.96	0.08	68,68,68,68	0
54	MG	1A	3079	1/1	0.96	0.22	42,42,42,42	0
54	MG	1A	3372	1/1	0.96	0.07	38,38,38,38	0
54	MG	2A	3146	1/1	0.96	0.07	65,65,65,65	0
54	MG	1A	3576	1/1	0.96	0.12	58,58,58,58	0
54	MG	1A	4006	1/1	0.96	0.09	18,18,18,18	0
54	MG	1a	1822	1/1	0.96	0.14	71,71,71,71	0
54	MG	1A	3692	1/1	0.96	0.07	63,63,63,63	0
54	MG	1A	3004	1/1	0.96	0.10	46,46,46,46	0
54	MG	2A	3417	1/1	0.96	0.12	33,33,33,33	0
54	MG	2W	203	1/1	0.96	0.12	66,66,66,66	0
54	MG	1A	3838	1/1	0.96	0.12	46,46,46,46	0
54	MG	1A	3286	1/1	0.96	0.14	36,36,36,36	0
54	MG	1A	3695	1/1	0.96	0.08	24,24,24,24	0
54	MG	1a	1828	1/1	0.96	0.07	74,74,74,74	0
54	MG	2A	3423	1/1	0.96	0.08	62,62,62,62	0
54	MG	2A	3158	1/1	0.96	0.06	56,56,56,56	0
54	MG	27	101	1/1	0.96	0.17	49,49,49,49	0
54	MG	1A	3471	1/1	0.96	0.08	54,54,54,54	0
54	MG	2a	3001	1/1	0.96	0.07	52,52,52,52	0
54	MG	1A	3697	1/1	0.96	0.08	54,54,54,54	0
54	MG	2A	3427	1/1	0.96	0.07	61,61,61,61	0
54	MG	2A	3162	1/1	0.96	0.27	50,50,50,50	0
54	MG	1A	3375	1/1	0.96	0.07	29,29,29,29	0
54	MG	1A	3376	1/1	0.96	0.07	45,45,45,45	0
54	MG	1A	3846	1/1	0.96	0.06	41,41,41,41	0
54	MG	1A	3287	1/1	0.96	0.25	45,45,45,45	0
54	MG	1A	3848	1/1	0.96	0.07	44,44,44,44	0
54	MG	2A	3168	1/1	0.96	0.06	52,52,52,52	0
54	MG	1A	3167	1/1	0.96	0.09	40,40,40,40	0
54	MG	2a	3013	1/1	0.96	0.06	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3438	1/1	0.96	0.05	72,72,72,72	0
54	MG	2A	3439	1/1	0.96	0.08	56,56,56,56	0
54	MG	1A	3169	1/1	0.96	0.09	35,35,35,35	0
54	MG	1A	3478	1/1	0.96	0.09	56,56,56,56	0
54	MG	2a	3018	1/1	0.96	0.12	51,51,51,51	0
54	MG	1A	3292	1/1	0.96	0.08	43,43,43,43	0
54	MG	1a	1660	1/1	0.96	0.09	49,49,49,49	0
54	MG	1A	3116	1/1	0.96	0.13	61,61,61,61	0
54	MG	2a	3023	1/1	0.96	0.05	55,55,55,55	0
54	MG	2A	3176	1/1	0.96	0.32	39,39,39,39	0
54	MG	1A	3386	1/1	0.96	0.06	30,30,30,30	0
54	MG	1A	3387	1/1	0.96	0.12	40,40,40,40	0
54	MG	1A	3119	1/1	0.96	0.15	35,35,35,35	0
54	MG	1a	1847	1/1	0.96	0.07	63,63,63,63	0
54	MG	1A	3485	1/1	0.96	0.07	34,34,34,34	0
54	MG	1a	1849	1/1	0.96	0.10	65,65,65,65	0
54	MG	1A	3486	1/1	0.96	0.05	39,39,39,39	0
54	MG	1A	3389	1/1	0.96	0.07	54,54,54,54	0
54	MG	2A	3189	1/1	0.96	0.11	40,40,40,40	0
54	MG	1A	3214	1/1	0.96	0.11	37,37,37,37	0
54	MG	1A	3713	1/1	0.96	0.18	50,50,50,50	0
54	MG	2a	3036	1/1	0.96	0.12	48,48,48,48	0
54	MG	1B	213	1/1	0.96	0.05	52,52,52,52	0
54	MG	1A	3120	1/1	0.96	0.20	45,45,45,45	0
54	MG	2A	3195	1/1	0.96	0.09	64,64,64,64	0
54	MG	1A	3718	1/1	0.96	0.05	39,39,39,39	0
54	MG	1A	3869	1/1	0.96	0.07	55,55,55,55	0
54	MG	1B	217	1/1	0.96	0.08	57,57,57,57	0
54	MG	1A	3175	1/1	0.96	0.14	31,31,31,31	0
54	MG	1A	3221	1/1	0.96	0.05	35,35,35,35	0
54	MG	1A	3121	1/1	0.96	0.07	47,47,47,47	0
54	MG	1A	3081	1/1	0.96	0.19	40,40,40,40	0
54	MG	2A	3468	1/1	0.96	0.14	55,55,55,55	0
54	MG	1A	3311	1/1	0.96	0.08	49,49,49,49	0
54	MG	1A	3082	1/1	0.96	0.07	45,45,45,45	0
54	MG	2A	3471	1/1	0.96	0.09	43,43,43,43	0
54	MG	2A	3472	1/1	0.96	0.12	40,40,40,40	0
54	MG	2A	3473	1/1	0.96	0.11	58,58,58,58	0
54	MG	1A	3497	1/1	0.96	0.07	48,48,48,48	0
54	MG	1A	3877	1/1	0.96	0.09	50,50,50,50	0
54	MG	1a	1685	1/1	0.96	0.08	51,51,51,51	0
54	MG	1a	1686	1/1	0.96	0.06	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3083	1/1	0.96	0.15	37,37,37,37	0
54	MG	1A	3228	1/1	0.96	0.10	39,39,39,39	0
54	MG	1D	302	1/1	0.96	0.08	54,54,54,54	0
54	MG	1D	308	1/1	0.96	0.14	41,41,41,41	0
54	MG	1A	3880	1/1	0.96	0.05	28,28,28,28	0
54	MG	1A	3184	1/1	0.96	0.15	37,37,37,37	0
54	MG	1A	3006	1/1	0.96	0.05	26,26,26,26	0
54	MG	1a	1881	1/1	0.96	0.21	61,61,61,61	0
54	MG	1A	3886	1/1	0.96	0.10	41,41,41,41	0
54	MG	2A	3490	1/1	0.96	0.06	30,30,30,30	0
54	MG	2A	3491	1/1	0.96	0.14	58,58,58,58	0
54	MG	1A	3738	1/1	0.96	0.05	37,37,37,37	0
54	MG	1A	3323	1/1	0.96	0.08	35,35,35,35	0
54	MG	2A	3224	1/1	0.96	0.09	26,26,26,26	0
54	MG	2A	3226	1/1	0.96	0.13	39,39,39,39	0
54	MG	1A	3504	1/1	0.96	0.06	31,31,31,31	0
54	MG	1A	3506	1/1	0.96	0.07	35,35,35,35	0
54	MG	1F	304	1/1	0.96	0.11	42,42,42,42	0
54	MG	1A	3619	1/1	0.96	0.16	34,34,34,34	0
54	MG	2A	3500	1/1	0.96	0.05	61,61,61,61	0
54	MG	1A	3233	1/1	0.96	0.07	56,56,56,56	0
54	MG	2A	3235	1/1	0.96	0.07	59,59,59,59	0
54	MG	2A	3503	1/1	0.96	0.10	56,56,56,56	0
54	MG	1A	3406	1/1	0.96	0.07	42,42,42,42	0
54	MG	1A	3750	1/1	0.96	0.09	51,51,51,51	0
54	MG	2A	3507	1/1	0.96	0.09	58,58,58,58	0
54	MG	1A	3752	1/1	0.96	0.10	46,46,46,46	0
54	MG	2A	3509	1/1	0.96	0.09	63,63,63,63	0
54	MG	1A	3510	1/1	0.96	0.10	51,51,51,51	0
54	MG	2A	3511	1/1	0.96	0.10	54,54,54,54	0
54	MG	1A	3754	1/1	0.96	0.07	50,50,50,50	0
54	MG	1F	315	1/1	0.96	0.13	49,49,49,49	0
54	MG	2A	3514	1/1	0.96	0.06	50,50,50,50	0
54	MG	1A	3755	1/1	0.96	0.19	64,64,64,64	0
54	MG	1k	201	1/1	0.96	0.12	49,49,49,49	0
54	MG	1a	1710	1/1	0.96	0.27	56,56,56,56	0
54	MG	1F	317	1/1	0.96	0.08	47,47,47,47	0
54	MG	2a	3094	1/1	0.96	0.32	67,67,67,67	0
54	MG	1G	201	1/1	0.96	0.05	73,73,73,73	0
54	MG	2A	3250	1/1	0.96	0.16	49,49,49,49	0
54	MG	1A	3901	1/1	0.96	0.05	41,41,41,41	0
54	MG	2A	3522	1/1	0.96	0.10	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3325	1/1	0.96	0.09	40,40,40,40	0
54	MG	2a	3100	1/1	0.96	0.07	68,68,68,68	0
54	MG	2A	3524	1/1	0.96	0.06	54,54,54,54	0
54	MG	2A	3526	1/1	0.96	0.07	59,59,59,59	0
54	MG	1A	3905	1/1	0.96	0.06	51,51,51,51	0
54	MG	1N	201	1/1	0.96	0.07	40,40,40,40	0
54	MG	2A	3255	1/1	0.96	0.11	56,56,56,56	0
54	MG	2A	3532	1/1	0.96	0.05	40,40,40,40	0
54	MG	1A	3514	1/1	0.96	0.11	47,47,47,47	0
54	MG	1A	3758	1/1	0.96	0.06	30,30,30,30	0
54	MG	2A	3260	1/1	0.96	0.15	57,57,57,57	0
54	MG	1A	3759	1/1	0.96	0.13	48,48,48,48	0
54	MG	1P	202	1/1	0.96	0.27	37,37,37,37	0
54	MG	2a	3112	1/1	0.96	0.06	67,67,67,67	0
54	MG	1A	3238	1/1	0.96	0.24	44,44,44,44	0
54	MG	1A	3914	1/1	0.96	0.06	36,36,36,36	0
54	MG	2A	3541	1/1	0.96	0.08	43,43,43,43	0
54	MG	2A	3267	1/1	0.96	0.14	41,41,41,41	0
54	MG	1A	3239	1/1	0.96	0.20	45,45,45,45	0
54	MG	1A	3328	1/1	0.96	0.12	47,47,47,47	0
54	MG	1A	3917	1/1	0.96	0.08	40,40,40,40	0
54	MG	2A	3011	1/1	0.96	0.11	43,43,43,43	0
54	MG	1R	202	1/1	0.96	0.08	39,39,39,39	0
54	MG	2a	3122	1/1	0.96	0.19	63,63,63,63	0
54	MG	2a	3123	1/1	0.96	0.14	80,80,80,80	0
54	MG	1a	1728	1/1	0.96	0.07	45,45,45,45	0
54	MG	1A	3919	1/1	0.96	0.08	40,40,40,40	0
54	MG	1R	204	1/1	0.96	0.15	52,52,52,52	0
54	MG	2A	3553	1/1	0.96	0.18	62,62,62,62	0
54	MG	1A	3920	1/1	0.96	0.11	30,30,30,30	0
54	MG	2A	3020	1/1	0.96	0.25	52,52,52,52	0
54	MG	2A	3021	1/1	0.96	0.06	47,47,47,47	0
54	MG	1A	3518	1/1	0.96	0.06	46,46,46,46	0
54	MG	1A	3924	1/1	0.96	0.27	41,41,41,41	0
54	MG	2A	3024	1/1	0.96	0.09	65,65,65,65	0
54	MG	1A	3416	1/1	0.96	0.07	30,30,30,30	0
54	MG	1A	3766	1/1	0.96	0.06	47,47,47,47	0
54	MG	1U	205	1/1	0.96	0.16	42,42,42,42	0
54	MG	2A	3030	1/1	0.96	0.09	45,45,45,45	0
54	MG	2A	3292	1/1	0.96	0.08	38,38,38,38	0
54	MG	2A	3031	1/1	0.96	0.09	36,36,36,36	0
54	MG	1a	1739	1/1	0.96	0.08	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1U	208	1/1	0.96	0.16	40,40,40,40	0
54	MG	1A	3928	1/1	0.96	0.10	44,44,44,44	0
54	MG	2A	3298	1/1	0.96	0.12	57,57,57,57	0
54	MG	1V	203	1/1	0.96	0.07	45,45,45,45	0
54	MG	2A	3302	1/1	0.96	0.09	54,54,54,54	0
54	MG	1A	3929	1/1	0.96	0.06	60,60,60,60	0
54	MG	1A	3930	1/1	0.96	0.05	61,61,61,61	0
54	MG	1A	3931	1/1	0.96	0.09	62,62,62,62	0
54	MG	2A	3039	1/1	0.96	0.22	64,64,64,64	0
54	MG	1A	3417	1/1	0.96	0.13	26,26,26,26	0
54	MG	2A	3041	1/1	0.96	0.12	58,58,58,58	0
54	MG	2A	3584	1/1	0.96	0.09	76,76,76,76	0
54	MG	1A	3418	1/1	0.96	0.07	22,22,22,22	0
54	MG	1A	3240	1/1	0.96	0.17	37,37,37,37	0
54	MG	1A	3637	1/1	0.96	0.12	49,49,49,49	0
54	MG	1A	3085	1/1	0.96	0.17	35,35,35,35	0
54	MG	1A	3060	1/1	0.96	0.09	55,55,55,55	0
54	MG	2A	3591	1/1	0.96	0.10	60,60,60,60	0
54	MG	1A	3641	1/1	0.96	0.09	34,34,34,34	0
54	MG	1A	3528	1/1	0.96	0.04	35,35,35,35	0
54	MG	2A	3595	1/1	0.96	0.10	47,47,47,47	0
54	MG	2a	3168	1/1	0.96	0.14	55,55,55,55	0
54	MG	2A	3596	1/1	0.96	0.12	41,41,41,41	0
54	MG	2A	3051	1/1	0.96	0.17	51,51,51,51	0
54	MG	2A	3317	1/1	0.96	0.05	43,43,43,43	0
54	MG	2a	3172	1/1	0.96	0.12	78,78,78,78	0
54	MG	1A	3245	1/1	0.96	0.23	33,33,33,33	0
54	MG	2A	3053	1/1	0.96	0.10	61,61,61,61	0
54	MG	1A	3025	1/1	0.96	0.13	35,35,35,35	0
54	MG	1A	3427	1/1	0.96	0.18	51,51,51,51	0
54	MG	1A	3948	1/1	0.96	0.04	32,32,32,32	0
54	MG	1A	3532	1/1	0.96	0.05	52,52,52,52	0
54	MG	2A	3611	1/1	0.96	0.07	46,46,46,46	0
54	MG	2A	3058	1/1	0.96	0.07	51,51,51,51	0
54	MG	2A	3059	1/1	0.96	0.05	41,41,41,41	0
54	MG	2A	3614	1/1	0.96	0.07	53,53,53,53	0
54	MG	1a	1762	1/1	0.96	0.12	56,56,56,56	0
54	MG	1l	103	1/1	0.96	0.08	57,57,57,57	0
54	MG	1A	3950	1/1	0.96	0.07	45,45,45,45	0
54	MG	2A	3618	1/1	0.96	0.07	67,67,67,67	0
54	MG	2a	3190	1/1	0.96	0.18	57,57,57,57	0
54	MG	1A	3248	1/1	0.96	0.19	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2f	201	1/1	0.96	0.06	51,51,51,51	0
54	MG	2A	3331	1/1	0.96	0.09	41,41,41,41	0
54	MG	2A	3621	1/1	0.96	0.07	49,49,49,49	0
54	MG	1A	3090	1/1	0.96	0.09	46,46,46,46	0
54	MG	1A	3953	1/1	0.96	0.10	45,45,45,45	0
54	MG	2A	3068	1/1	0.96	0.08	52,52,52,52	0
54	MG	2A	3335	1/1	0.96	0.07	43,43,43,43	0
54	MG	13	104	1/1	0.96	0.10	45,45,45,45	0
54	MG	2A	3075	1/1	0.96	0.20	47,47,47,47	0
54	MG	1A	3432	1/1	0.96	0.05	32,32,32,32	0
54	MG	2A	3339	1/1	0.96	0.08	71,71,71,71	0
54	MG	2A	3631	1/1	0.96	0.09	62,62,62,62	0
54	MG	1A	3956	1/1	0.96	0.06	30,30,30,30	0
54	MG	1A	3957	1/1	0.96	0.05	33,33,33,33	0
54	MG	15	107	1/1	0.96	0.07	56,56,56,56	0
54	MG	2A	3635	1/1	0.96	0.10	57,57,57,57	0
54	MG	1A	3251	1/1	0.96	0.15	34,34,34,34	0
54	MG	2A	3637	1/1	0.96	0.09	60,60,60,60	0
54	MG	17	103	1/1	0.96	0.16	43,43,43,43	0
54	MG	2A	3346	1/1	0.96	0.10	42,42,42,42	0
54	MG	2A	3083	1/1	0.96	0.08	57,57,57,57	0
54	MG	1A	3431	1/1	0.97	0.06	45,45,45,45	0
54	MG	1P	205	1/1	0.97	0.15	58,58,58,58	0
54	MG	1a	1711	1/1	0.97	0.10	61,61,61,61	0
54	MG	1A	3078	1/1	0.97	0.23	36,36,36,36	0
54	MG	2E	301	1/1	0.97	0.11	44,44,44,44	0
54	MG	1A	3147	1/1	0.97	0.06	34,34,34,34	0
54	MG	1A	3790	1/1	0.97	0.08	44,44,44,44	0
54	MG	1Q	204	1/1	0.97	0.06	43,43,43,43	0
54	MG	1A	3192	1/1	0.97	0.21	39,39,39,39	0
54	MG	1R	201	1/1	0.97	0.09	41,41,41,41	0
54	MG	2A	3214	1/1	0.97	0.05	61,61,61,61	0
54	MG	2F	304	1/1	0.97	0.12	48,48,48,48	0
54	MG	1A	3337	1/1	0.97	0.21	47,47,47,47	0
54	MG	1A	3539	1/1	0.97	0.07	51,51,51,51	0
54	MG	1A	3250	1/1	0.97	0.24	41,41,41,41	0
54	MG	2Q	201	1/1	0.97	0.17	61,61,61,61	0
54	MG	2Q	202	1/1	0.97	0.24	56,56,56,56	0
54	MG	1A	3059	1/1	0.97	0.07	30,30,30,30	0
54	MG	1A	3252	1/1	0.97	0.21	52,52,52,52	0
54	MG	1A	3150	1/1	0.97	0.17	39,39,39,39	0
54	MG	1A	3799	1/1	0.97	0.06	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2T	202	1/1	0.97	0.07	70,70,70,70	0
54	MG	1U	202	1/1	0.97	0.12	39,39,39,39	0
54	MG	1A	3546	1/1	0.97	0.07	33,33,33,33	0
54	MG	1A	3801	1/1	0.97	0.05	72,72,72,72	0
54	MG	1U	206	1/1	0.97	0.17	36,36,36,36	0
54	MG	2W	201	1/1	0.97	0.20	50,50,50,50	0
54	MG	1a	1729	1/1	0.97	0.14	46,46,46,46	0
54	MG	2A	3007	1/1	0.97	0.07	49,49,49,49	0
54	MG	1A	3037	1/1	0.97	0.07	51,51,51,51	0
54	MG	2A	3009	1/1	0.97	0.09	43,43,43,43	0
54	MG	2A	3467	1/1	0.97	0.07	58,58,58,58	0
54	MG	1A	3665	1/1	0.97	0.06	54,54,54,54	0
54	MG	2A	3234	1/1	0.97	0.07	43,43,43,43	0
54	MG	1A	3955	1/1	0.97	0.07	65,65,65,65	0
54	MG	25	102	1/1	0.97	0.18	50,50,50,50	0
54	MG	1A	3108	1/1	0.97	0.36	35,35,35,35	0
54	MG	28	101	1/1	0.97	0.06	52,52,52,52	0
54	MG	2A	3238	1/1	0.97	0.07	50,50,50,50	0
54	MG	2A	3239	1/1	0.97	0.08	44,44,44,44	0
54	MG	2A	3013	1/1	0.97	0.10	27,27,27,27	0
54	MG	1A	3022	1/1	0.97	0.07	55,55,55,55	0
54	MG	1A	3958	1/1	0.97	0.10	33,33,33,33	0
54	MG	1A	3443	1/1	0.97	0.09	27,27,27,27	0
54	MG	1A	3551	1/1	0.97	0.11	53,53,53,53	0
54	MG	1Y	201	1/1	0.97	0.11	63,63,63,63	0
54	MG	1A	3444	1/1	0.97	0.10	33,33,33,33	0
54	MG	1A	3962	1/1	0.97	0.12	51,51,51,51	0
54	MG	10	101	1/1	0.97	0.08	50,50,50,50	0
54	MG	2A	3483	1/1	0.97	0.06	75,75,75,75	0
54	MG	1A	3445	1/1	0.97	0.06	20,20,20,20	0
54	MG	1A	3019	1/1	0.97	0.17	29,29,29,29	0
54	MG	2A	3026	1/1	0.97	0.12	46,46,46,46	0
54	MG	1A	3556	1/1	0.97	0.05	34,34,34,34	0
54	MG	2A	3489	1/1	0.97	0.06	76,76,76,76	0
54	MG	2A	3028	1/1	0.97	0.04	31,31,31,31	0
54	MG	1A	3063	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3115	1/1	0.97	0.19	35,35,35,35	0
54	MG	2a	3021	1/1	0.97	0.07	51,51,51,51	0
54	MG	1A	3157	1/1	0.97	0.16	42,42,42,42	0
54	MG	2A	3258	1/1	0.97	0.04	49,49,49,49	0
54	MG	1a	1750	1/1	0.97	0.12	45,45,45,45	0
54	MG	1A	3351	1/1	0.97	0.05	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3265	1/1	0.97	0.11	36,36,36,36	0
54	MG	1A	3031	1/1	0.97	0.12	22,22,22,22	0
54	MG	1A	3972	1/1	0.97	0.07	47,47,47,47	0
54	MG	11	104	1/1	0.97	0.06	51,51,51,51	0
54	MG	2A	3265	1/1	0.97	0.08	50,50,50,50	0
54	MG	1A	3819	1/1	0.97	0.06	48,48,48,48	0
54	MG	2A	3269	1/1	0.97	0.11	68,68,68,68	0
54	MG	1A	3975	1/1	0.97	0.04	31,31,31,31	0
54	MG	1A	3117	1/1	0.97	0.06	40,40,40,40	0
54	MG	1A	3823	1/1	0.97	0.08	48,48,48,48	0
54	MG	2A	3042	1/1	0.97	0.05	28,28,28,28	0
54	MG	1A	3206	1/1	0.97	0.16	43,43,43,43	0
54	MG	15	101	1/1	0.97	0.15	34,34,34,34	0
54	MG	1A	3358	1/1	0.97	0.08	43,43,43,43	0
54	MG	1A	3568	1/1	0.97	0.07	54,54,54,54	0
54	MG	1A	3271	1/1	0.97	0.22	35,35,35,35	0
54	MG	1A	3361	1/1	0.97	0.06	44,44,44,44	0
54	MG	1A	3830	1/1	0.97	0.15	35,35,35,35	0
54	MG	2A	3050	1/1	0.97	0.16	47,47,47,47	0
54	MG	17	101	1/1	0.97	0.06	42,42,42,42	0
54	MG	17	102	1/1	0.97	0.06	41,41,41,41	0
54	MG	1A	3273	1/1	0.97	0.07	55,55,55,55	0
54	MG	1A	3162	1/1	0.97	0.24	36,36,36,36	0
54	MG	17	105	1/1	0.97	0.07	50,50,50,50	0
54	MG	1A	3046	1/1	0.97	0.14	19,19,19,19	0
54	MG	1A	3016	1/1	0.97	0.17	37,37,37,37	0
54	MG	19	101	1/1	0.97	0.13	61,61,61,61	0
54	MG	1A	3210	1/1	0.97	0.07	45,45,45,45	0
54	MG	1a	1777	1/1	0.97	0.08	51,51,51,51	0
54	MG	1A	3087	1/1	0.97	0.21	45,45,45,45	0
54	MG	1A	3168	1/1	0.97	0.10	44,44,44,44	0
54	MG	2A	3530	1/1	0.97	0.06	54,54,54,54	0
54	MG	1A	3995	1/1	0.97	0.05	21,21,21,21	0
54	MG	1A	3281	1/1	0.97	0.21	43,43,43,43	0
54	MG	1a	1782	1/1	0.97	0.10	64,64,64,64	0
54	MG	1A	3282	1/1	0.97	0.07	35,35,35,35	0
54	MG	2A	3069	1/1	0.97	0.05	28,28,28,28	0
54	MG	2A	3071	1/1	0.97	0.06	55,55,55,55	0
54	MG	2A	3072	1/1	0.97	0.10	55,55,55,55	0
54	MG	1A	3582	1/1	0.97	0.23	48,48,48,48	0
54	MG	2A	3074	1/1	0.97	0.07	42,42,42,42	0
54	MG	1A	3213	1/1	0.97	0.20	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3285	1/1	0.97	0.12	34,34,34,34	0
54	MG	1A	3126	1/1	0.97	0.13	34,34,34,34	0
54	MG	1A	3215	1/1	0.97	0.12	45,45,45,45	0
54	MG	2A	3547	1/1	0.97	0.06	29,29,29,29	0
54	MG	1A	3216	1/1	0.97	0.20	43,43,43,43	0
54	MG	1A	3379	1/1	0.97	0.04	19,19,19,19	0
54	MG	1A	3380	1/1	0.97	0.05	46,46,46,46	0
54	MG	1A	3289	1/1	0.97	0.09	53,53,53,53	0
54	MG	1A	3592	1/1	0.97	0.12	44,44,44,44	0
54	MG	1A	4008	1/1	0.97	0.07	40,40,40,40	0
54	MG	1A	3290	1/1	0.97	0.06	66,66,66,66	0
54	MG	1A	3127	1/1	0.97	0.07	38,38,38,38	0
54	MG	1A	3385	1/1	0.97	0.05	34,34,34,34	0
54	MG	2A	3089	1/1	0.97	0.07	36,36,36,36	0
54	MG	2A	3090	1/1	0.97	0.12	73,73,73,73	0
54	MG	1A	3049	1/1	0.97	0.15	54,54,54,54	0
54	MG	1A	3219	1/1	0.97	0.11	48,48,48,48	0
54	MG	1A	3714	1/1	0.97	0.08	52,52,52,52	0
54	MG	1A	4016	1/1	0.97	0.07	45,45,45,45	0
54	MG	1A	3220	1/1	0.97	0.09	28,28,28,28	0
54	MG	1A	3033	1/1	0.97	0.06	47,47,47,47	0
54	MG	1A	3174	1/1	0.97	0.09	45,45,45,45	0
54	MG	1A	3865	1/1	0.97	0.06	38,38,38,38	0
54	MG	1a	1629	1/1	0.97	0.32	69,69,69,69	0
54	MG	1A	3130	1/1	0.97	0.12	50,50,50,50	0
54	MG	1A	3301	1/1	0.97	0.08	34,34,34,34	0
54	MG	1A	3302	1/1	0.97	0.06	49,49,49,49	0
54	MG	2A	3103	1/1	0.97	0.21	47,47,47,47	0
54	MG	1A	3305	1/1	0.97	0.10	41,41,41,41	0
54	MG	1A	3727	1/1	0.97	0.27	42,42,42,42	0
54	MG	1A	3306	1/1	0.97	0.12	35,35,35,35	0
54	MG	1A	3730	1/1	0.97	0.05	32,32,32,32	0
54	MG	1A	3224	1/1	0.97	0.17	30,30,30,30	0
54	MG	2A	3578	1/1	0.97	0.05	65,65,65,65	0
54	MG	1a	1816	1/1	0.97	0.07	65,65,65,65	0
54	MG	2A	3112	1/1	0.97	0.17	51,51,51,51	0
54	MG	1A	3732	1/1	0.97	0.05	32,32,32,32	0
54	MG	1A	3091	1/1	0.97	0.07	39,39,39,39	0
54	MG	1A	3309	1/1	0.97	0.06	51,51,51,51	0
54	MG	1A	3132	1/1	0.97	0.07	70,70,70,70	0
54	MG	2A	3119	1/1	0.97	0.12	47,47,47,47	0
54	MG	2A	3590	1/1	0.97	0.15	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3120	1/1	0.97	0.11	56,56,56,56	0
54	MG	1A	3611	1/1	0.97	0.09	60,60,60,60	0
54	MG	2A	3593	1/1	0.97	0.07	65,65,65,65	0
54	MG	1A	3500	1/1	0.97	0.08	32,32,32,32	0
54	MG	1A	3613	1/1	0.97	0.06	45,45,45,45	0
54	MG	1A	3740	1/1	0.97	0.06	33,33,33,33	0
54	MG	1A	3227	1/1	0.97	0.10	48,48,48,48	0
54	MG	2A	3127	1/1	0.97	0.07	41,41,41,41	0
54	MG	2A	3599	1/1	0.97	0.09	38,38,38,38	0
54	MG	1A	3885	1/1	0.97	0.05	47,47,47,47	0
54	MG	1A	3402	1/1	0.97	0.06	34,34,34,34	0
54	MG	2A	3602	1/1	0.97	0.05	46,46,46,46	0
54	MG	1B	219	1/1	0.97	0.08	40,40,40,40	0
54	MG	1A	3887	1/1	0.97	0.07	28,28,28,28	0
54	MG	1A	3616	1/1	0.97	0.10	61,61,61,61	0
54	MG	1B	222	1/1	0.97	0.06	55,55,55,55	0
54	MG	2A	3609	1/1	0.97	0.08	63,63,63,63	0
54	MG	2A	3610	1/1	0.97	0.06	49,49,49,49	0
54	MG	1A	3092	1/1	0.97	0.08	45,45,45,45	0
54	MG	1A	3313	1/1	0.97	0.21	38,38,38,38	0
54	MG	1A	3747	1/1	0.97	0.11	34,34,34,34	0
54	MG	1A	3001	1/1	0.97	0.06	42,42,42,42	0
54	MG	2A	3370	1/1	0.97	0.11	49,49,49,49	0
54	MG	1A	3507	1/1	0.97	0.06	29,29,29,29	0
54	MG	2A	3372	1/1	0.97	0.04	61,61,61,61	0
54	MG	1a	1838	1/1	0.97	0.09	58,58,58,58	0
54	MG	1A	3621	1/1	0.97	0.09	64,64,64,64	0
54	MG	1A	3230	1/1	0.97	0.11	41,41,41,41	0
54	MG	2A	3377	1/1	0.97	0.06	67,67,67,67	0
54	MG	2A	3143	1/1	0.97	0.10	49,49,49,49	0
54	MG	1A	3318	1/1	0.97	0.22	39,39,39,39	0
54	MG	1A	3625	1/1	0.97	0.09	51,51,51,51	0
54	MG	1a	1666	1/1	0.97	0.07	67,67,67,67	0
54	MG	2A	3626	1/1	0.97	0.06	62,62,62,62	0
54	MG	1D	305	1/1	0.97	0.16	47,47,47,47	0
54	MG	1D	307	1/1	0.97	0.04	43,43,43,43	0
54	MG	2A	3149	1/1	0.97	0.12	53,53,53,53	0
54	MG	2A	3150	1/1	0.97	0.14	60,60,60,60	0
54	MG	1A	3319	1/1	0.97	0.16	29,29,29,29	0
54	MG	1A	3511	1/1	0.97	0.11	33,33,33,33	0
54	MG	1A	3409	1/1	0.97	0.07	26,26,26,26	0
54	MG	1D	311	1/1	0.97	0.21	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3513	1/1	0.97	0.06	49,49,49,49	0
54	MG	1A	3411	1/1	0.97	0.05	31,31,31,31	0
54	MG	1A	3907	1/1	0.97	0.04	39,39,39,39	0
54	MG	2A	3394	1/1	0.97	0.07	52,52,52,52	0
54	MG	1a	1853	1/1	0.97	0.11	65,65,65,65	0
54	MG	1D	315	1/1	0.97	0.08	63,63,63,63	0
54	MG	2A	3160	1/1	0.97	0.22	59,59,59,59	0
54	MG	2a	3163	1/1	0.97	0.06	54,54,54,54	0
54	MG	2a	3164	1/1	0.97	0.05	78,78,78,78	0
54	MG	1D	316	1/1	0.97	0.10	50,50,50,50	0
54	MG	1a	1857	1/1	0.97	0.06	62,62,62,62	0
54	MG	1A	3909	1/1	0.97	0.09	63,63,63,63	0
54	MG	1A	3231	1/1	0.97	0.18	37,37,37,37	0
54	MG	1A	3321	1/1	0.97	0.15	33,33,33,33	0
54	MG	1E	309	1/1	0.97	0.07	61,61,61,61	0
54	MG	1a	1862	1/1	0.97	0.06	49,49,49,49	0
54	MG	1A	3414	1/1	0.97	0.09	25,25,25,25	0
54	MG	2A	3650	1/1	0.97	0.06	37,37,37,37	0
54	MG	2a	3175	1/1	0.97	0.06	70,70,70,70	0
54	MG	1A	3415	1/1	0.97	0.10	30,30,30,30	0
54	MG	1F	306	1/1	0.97	0.11	29,29,29,29	0
54	MG	2A	3408	1/1	0.97	0.10	68,68,68,68	0
54	MG	1F	307	1/1	0.97	0.09	37,37,37,37	0
54	MG	1A	3181	1/1	0.97	0.23	42,42,42,42	0
54	MG	2a	3181	1/1	0.97	0.10	59,59,59,59	0
54	MG	1A	3183	1/1	0.97	0.12	33,33,33,33	0
54	MG	1A	3770	1/1	0.97	0.12	58,58,58,58	0
54	MG	1A	3236	1/1	0.97	0.31	42,42,42,42	0
54	MG	2A	3415	1/1	0.97	0.11	57,57,57,57	0
54	MG	1A	3918	1/1	0.97	0.08	26,26,26,26	0
54	MG	1A	3094	1/1	0.97	0.09	38,38,38,38	0
54	MG	2A	3663	1/1	0.97	0.13	58,58,58,58	0
54	MG	1A	3421	1/1	0.97	0.20	60,60,60,60	0
54	MG	1A	3921	1/1	0.97	0.07	52,52,52,52	0
54	MG	1A	3642	1/1	0.97	0.06	36,36,36,36	0
54	MG	1A	3054	1/1	0.97	0.11	31,31,31,31	0
54	MG	1A	3776	1/1	0.97	0.05	30,30,30,30	0
54	MG	1a	1878	1/1	0.97	0.06	61,61,61,61	0
54	MG	1a	1697	1/1	0.97	0.12	51,51,51,51	0
54	MG	2A	3190	1/1	0.97	0.06	54,54,54,54	0
54	MG	1A	3056	1/1	0.97	0.08	34,34,34,34	0
54	MG	1A	3140	1/1	0.97	0.20	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2B	204	1/1	0.97	0.18	57,57,57,57	0
54	MG	1H	202	1/1	0.97	0.06	46,46,46,46	0
54	MG	2A	3431	1/1	0.97	0.07	45,45,45,45	0
54	MG	1A	3057	1/1	0.97	0.17	43,43,43,43	0
54	MG	1N	202	1/1	0.97	0.09	40,40,40,40	0
54	MG	2A	3196	1/1	0.97	0.09	64,64,64,64	0
54	MG	1A	3028	1/1	0.97	0.12	34,34,34,34	0
54	MG	1A	3332	1/1	0.97	0.05	25,25,25,25	0
54	MG	1A	3246	1/1	0.97	0.20	37,37,37,37	0
54	MG	1P	201	1/1	0.97	0.21	38,38,38,38	0
54	MG	1A	3650	1/1	0.97	0.08	34,34,34,34	0
54	MG	2A	3202	1/1	0.97	0.14	44,44,44,44	0
54	MG	2D	302	1/1	0.97	0.07	44,44,44,44	0
54	MG	1P	203	1/1	0.97	0.12	34,34,34,34	0
59	ZN	14	501	1/1	0.97	0.11	118,118,118,118	0
59	ZN	24	501	1/1	0.97	0.15	121,121,121,121	0
60	SF4	2d	501	8/8	0.97	0.06	69,84,87,92	0
54	MG	1A	3159	1/1	0.98	0.09	34,34,34,34	0
54	MG	1A	3410	1/1	0.98	0.11	31,31,31,31	0
54	MG	2A	3266	1/1	0.98	0.10	38,38,38,38	0
54	MG	2A	3113	1/1	0.98	0.05	48,48,48,48	0
54	MG	2A	3268	1/1	0.98	0.07	33,33,33,33	0
54	MG	2A	3604	1/1	0.98	0.05	71,71,71,71	0
54	MG	1A	3829	1/1	0.98	0.18	42,42,42,42	0
54	MG	1A	3199	1/1	0.98	0.08	37,37,37,37	0
54	MG	1A	3728	1/1	0.98	0.11	36,36,36,36	0
54	MG	1A	3639	1/1	0.98	0.11	60,60,60,60	0
54	MG	2A	3118	1/1	0.98	0.13	42,42,42,42	0
54	MG	1A	3125	1/1	0.98	0.10	34,34,34,34	0
54	MG	1a	1751	1/1	0.98	0.05	61,61,61,61	0
54	MG	1A	3834	1/1	0.98	0.04	34,34,34,34	0
54	MG	2A	3278	1/1	0.98	0.05	47,47,47,47	0
54	MG	2A	3279	1/1	0.98	0.04	50,50,50,50	0
54	MG	1A	3161	1/1	0.98	0.07	36,36,36,36	0
54	MG	1A	3295	1/1	0.98	0.11	27,27,27,27	0
54	MG	1E	302	1/1	0.98	0.25	45,45,45,45	0
54	MG	1E	304	1/1	0.98	0.08	29,29,29,29	0
54	MG	1A	3297	1/1	0.98	0.09	41,41,41,41	0
54	MG	1A	3353	1/1	0.98	0.07	40,40,40,40	0
54	MG	1A	3072	1/1	0.98	0.14	34,34,34,34	0
54	MG	1A	3566	1/1	0.98	0.05	52,52,52,52	0
54	MG	1F	301	1/1	0.98	0.05	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1F	302	1/1	0.98	0.17	31,31,31,31	0
54	MG	1A	3163	1/1	0.98	0.13	38,38,38,38	0
54	MG	1A	3356	1/1	0.98	0.08	27,27,27,27	0
54	MG	1A	3420	1/1	0.98	0.04	28,28,28,28	0
54	MG	1A	3003	1/1	0.98	0.04	31,31,31,31	0
54	MG	1A	3074	1/1	0.98	0.05	31,31,31,31	0
54	MG	1F	309	1/1	0.98	0.08	39,39,39,39	0
54	MG	1A	3652	1/1	0.98	0.16	37,37,37,37	0
54	MG	1A	3423	1/1	0.98	0.04	26,26,26,26	0
54	MG	1a	1639	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3095	1/1	0.98	0.16	39,39,39,39	0
54	MG	1A	3360	1/1	0.98	0.07	42,42,42,42	0
54	MG	1A	3852	1/1	0.98	0.09	47,47,47,47	0
54	MG	1A	3748	1/1	0.98	0.06	50,50,50,50	0
54	MG	1A	3854	1/1	0.98	0.04	50,50,50,50	0
54	MG	2A	3004	1/1	0.98	0.05	42,42,42,42	0
54	MG	1A	3303	1/1	0.98	0.07	43,43,43,43	0
54	MG	1A	3751	1/1	0.98	0.05	46,46,46,46	0
54	MG	1A	3304	1/1	0.98	0.12	47,47,47,47	0
54	MG	1A	3974	1/1	0.98	0.12	47,47,47,47	0
54	MG	1G	204	1/1	0.98	0.12	57,57,57,57	0
54	MG	1A	3577	1/1	0.98	0.07	42,42,42,42	0
54	MG	1A	3659	1/1	0.98	0.04	31,31,31,31	0
54	MG	1A	3428	1/1	0.98	0.04	33,33,33,33	0
54	MG	1A	3363	1/1	0.98	0.05	47,47,47,47	0
54	MG	2A	3014	1/1	0.98	0.07	60,60,60,60	0
54	MG	2A	3015	1/1	0.98	0.13	38,38,38,38	0
54	MG	1a	1655	1/1	0.98	0.09	47,47,47,47	0
54	MG	2A	3653	1/1	0.98	0.10	55,55,55,55	0
54	MG	1A	3055	1/1	0.98	0.13	36,36,36,36	0
54	MG	1A	3980	1/1	0.98	0.07	26,26,26,26	0
54	MG	1A	3981	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3098	1/1	0.98	0.05	20,20,20,20	0
54	MG	1A	3505	1/1	0.98	0.06	45,45,45,45	0
54	MG	1A	3984	1/1	0.98	0.06	55,55,55,55	0
54	MG	2A	3488	1/1	0.98	0.05	46,46,46,46	0
54	MG	1a	1662	1/1	0.98	0.08	68,68,68,68	0
54	MG	2A	3328	1/1	0.98	0.07	43,43,43,43	0
54	MG	1A	3015	1/1	0.98	0.05	35,35,35,35	0
54	MG	1A	3171	1/1	0.98	0.14	43,43,43,43	0
54	MG	1A	3667	1/1	0.98	0.20	48,48,48,48	0
54	MG	2A	3171	1/1	0.98	0.12	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3668	1/1	0.98	0.08	32,32,32,32	0
54	MG	1A	3764	1/1	0.98	0.03	30,30,30,30	0
54	MG	1A	3133	1/1	0.98	0.04	35,35,35,35	0
54	MG	1A	3007	1/1	0.98	0.07	39,39,39,39	0
54	MG	1A	3371	1/1	0.98	0.04	23,23,23,23	0
54	MG	2A	3177	1/1	0.98	0.17	44,44,44,44	0
54	MG	1A	3101	1/1	0.98	0.05	38,38,38,38	0
54	MG	1A	3769	1/1	0.98	0.04	39,39,39,39	0
54	MG	2A	3180	1/1	0.98	0.14	38,38,38,38	0
54	MG	2A	3504	1/1	0.98	0.09	41,41,41,41	0
54	MG	1A	3040	1/1	0.98	0.10	39,39,39,39	0
54	MG	2A	3343	1/1	0.98	0.09	67,67,67,67	0
54	MG	1A	3591	1/1	0.98	0.08	32,32,32,32	0
54	MG	1A	3005	1/1	0.98	0.09	25,25,25,25	0
54	MG	1A	3261	1/1	0.98	0.17	40,40,40,40	0
54	MG	2A	3185	1/1	0.98	0.19	43,43,43,43	0
54	MG	1A	3315	1/1	0.98	0.04	25,25,25,25	0
54	MG	1A	3316	1/1	0.98	0.15	46,46,46,46	0
54	MG	2A	3188	1/1	0.98	0.12	25,25,25,25	0
54	MG	2A	3351	1/1	0.98	0.04	52,52,52,52	0
54	MG	1U	203	1/1	0.98	0.30	37,37,37,37	0
54	MG	1A	3104	1/1	0.98	0.27	35,35,35,35	0
54	MG	1A	3681	1/1	0.98	0.12	51,51,51,51	0
54	MG	1A	3263	1/1	0.98	0.11	48,48,48,48	0
54	MG	1U	207	1/1	0.98	0.11	48,48,48,48	0
54	MG	1A	3264	1/1	0.98	0.07	53,53,53,53	0
54	MG	1A	3139	1/1	0.98	0.10	32,32,32,32	0
54	MG	2a	3135	1/1	0.98	0.14	58,58,58,58	0
54	MG	2E	303	1/1	0.98	0.04	50,50,50,50	0
54	MG	1V	201	1/1	0.98	0.06	29,29,29,29	0
54	MG	1V	202	1/1	0.98	0.09	35,35,35,35	0
54	MG	1A	3266	1/1	0.98	0.12	39,39,39,39	0
54	MG	2a	3140	1/1	0.98	0.11	68,68,68,68	0
54	MG	1A	3783	1/1	0.98	0.07	35,35,35,35	0
54	MG	1A	3522	1/1	0.98	0.05	51,51,51,51	0
54	MG	1A	3523	1/1	0.98	0.09	57,57,57,57	0
54	MG	1A	3383	1/1	0.98	0.13	61,61,61,61	0
54	MG	1A	4012	1/1	0.98	0.04	60,60,60,60	0
54	MG	2A	3531	1/1	0.98	0.06	50,50,50,50	0
54	MG	1A	3787	1/1	0.98	0.04	37,37,37,37	0
54	MG	1A	3604	1/1	0.98	0.13	54,54,54,54	0
54	MG	1A	3042	1/1	0.98	0.10	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	2A	3207	1/1	0.98	0.07	45,45,45,45	0
54	MG	2R	201	1/1	0.98	0.06	47,47,47,47	0
54	MG	1A	3044	1/1	0.98	0.13	34,34,34,34	0
54	MG	1A	3182	1/1	0.98	0.04	31,31,31,31	0
54	MG	2a	3155	1/1	0.98	0.13	56,56,56,56	0
54	MG	2A	3373	1/1	0.98	0.04	46,46,46,46	0
54	MG	1A	3270	1/1	0.98	0.14	40,40,40,40	0
54	MG	1a	1832	1/1	0.98	0.05	63,63,63,63	0
54	MG	1A	3107	1/1	0.98	0.05	33,33,33,33	0
54	MG	1A	3902	1/1	0.98	0.04	54,54,54,54	0
54	MG	1A	3045	1/1	0.98	0.14	32,32,32,32	0
54	MG	2A	3065	1/1	0.98	0.07	52,52,52,52	0
54	MG	1A	3144	1/1	0.98	0.10	35,35,35,35	0
54	MG	1A	3391	1/1	0.98	0.05	32,32,32,32	0
54	MG	1A	3145	1/1	0.98	0.11	26,26,26,26	0
54	MG	2A	3070	1/1	0.98	0.15	48,48,48,48	0
54	MG	1A	3276	1/1	0.98	0.10	38,38,38,38	0
54	MG	1A	3331	1/1	0.98	0.07	36,36,36,36	0
54	MG	1A	3024	1/1	0.98	0.14	29,29,29,29	0
54	MG	1A	3018	1/1	0.98	0.14	34,34,34,34	0
54	MG	25	103	1/1	0.98	0.05	61,61,61,61	0
54	MG	1A	3112	1/1	0.98	0.19	37,37,37,37	0
54	MG	2A	3225	1/1	0.98	0.09	61,61,61,61	0
54	MG	13	101	1/1	0.98	0.09	35,35,35,35	0
54	MG	2A	3228	1/1	0.98	0.06	46,46,46,46	0
54	MG	2A	3392	1/1	0.98	0.08	41,41,41,41	0
54	MG	2A	3077	1/1	0.98	0.05	44,44,44,44	0
54	MG	1A	3026	1/1	0.98	0.14	35,35,35,35	0
54	MG	1A	3467	1/1	0.98	0.05	31,31,31,31	0
54	MG	1B	207	1/1	0.98	0.10	49,49,49,49	0
54	MG	1A	3543	1/1	0.98	0.05	26,26,26,26	0
54	MG	15	102	1/1	0.98	0.19	38,38,38,38	0
54	MG	2a	3009	1/1	0.98	0.04	66,66,66,66	0
54	MG	1A	3050	1/1	0.98	0.09	44,44,44,44	0
54	MG	2A	3236	1/1	0.98	0.06	44,44,44,44	0
54	MG	2A	3568	1/1	0.98	0.04	60,60,60,60	0
54	MG	1A	3013	1/1	0.98	0.03	20,20,20,20	0
54	MG	1B	211	1/1	0.98	0.14	54,54,54,54	0
54	MG	1B	212	1/1	0.98	0.05	44,44,44,44	0
54	MG	1A	3624	1/1	0.98	0.17	40,40,40,40	0
54	MG	1A	3088	1/1	0.98	0.35	36,36,36,36	0
54	MG	1A	3339	1/1	0.98	0.07	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3036	1/1	0.98	0.06	34,34,34,34	0
54	MG	1A	3474	1/1	0.98	0.07	44,44,44,44	0
54	MG	1A	3234	1/1	0.98	0.14	34,34,34,34	0
54	MG	1A	3715	1/1	0.98	0.20	43,43,43,43	0
54	MG	1A	3716	1/1	0.98	0.03	41,41,41,41	0
54	MG	2A	3582	1/1	0.98	0.05	61,61,61,61	0
54	MG	2A	3583	1/1	0.98	0.05	59,59,59,59	0
54	MG	1A	3817	1/1	0.98	0.11	41,41,41,41	0
54	MG	1A	3053	1/1	0.98	0.06	34,34,34,34	0
54	MG	1A	3237	1/1	0.98	0.24	38,38,38,38	0
54	MG	1a	1732	1/1	0.98	0.07	46,46,46,46	0
54	MG	1A	3071	1/1	0.98	0.14	39,39,39,39	0
54	MG	1A	3821	1/1	0.98	0.05	40,40,40,40	0
54	MG	1A	3937	1/1	0.98	0.07	61,61,61,61	0
54	MG	1A	3822	1/1	0.98	0.06	49,49,49,49	0
54	MG	1A	3123	1/1	0.98	0.10	30,30,30,30	0
54	MG	2A	3104	1/1	0.98	0.08	39,39,39,39	0
54	MG	1A	3722	1/1	0.98	0.05	30,30,30,30	0
54	MG	1A	3555	1/1	0.98	0.07	37,37,37,37	0
54	MG	1D	304	1/1	0.98	0.05	47,47,47,47	0
59	ZN	1n	102	1/1	0.98	0.04	84,84,84,84	0
54	MG	1A	3724	1/1	0.98	0.08	46,46,46,46	0
59	ZN	2n	102	1/1	0.98	0.06	95,95,95,95	0
60	SF4	1d	304	8/8	0.98	0.06	60,68,72,73	0
54	MG	1D	306	1/1	0.98	0.05	17,17,17,17	0
54	MG	1A	3540	1/1	0.99	0.03	25,25,25,25	0
54	MG	1E	303	1/1	0.99	0.09	37,37,37,37	0
54	MG	1A	3906	1/1	0.99	0.06	34,34,34,34	0
54	MG	1A	3482	1/1	0.99	0.03	38,38,38,38	0
54	MG	2A	3429	1/1	0.99	0.04	37,37,37,37	0
54	MG	2A	3123	1/1	0.99	0.04	43,43,43,43	0
54	MG	1E	306	1/1	0.99	0.04	38,38,38,38	0
54	MG	1A	3908	1/1	0.99	0.07	61,61,61,61	0
54	MG	1A	3741	1/1	0.99	0.03	35,35,35,35	0
54	MG	1A	3862	1/1	0.99	0.06	41,41,41,41	0
54	MG	2A	3274	1/1	0.99	0.11	44,44,44,44	0
54	MG	1A	3780	1/1	0.99	0.04	43,43,43,43	0
54	MG	2A	3606	1/1	0.99	0.03	42,42,42,42	0
54	MG	1A	3097	1/1	0.99	0.09	36,36,36,36	0
54	MG	1F	303	1/1	0.99	0.15	42,42,42,42	0
54	MG	1A	3259	1/1	0.99	0.20	32,32,32,32	0
54	MG	1A	3364	1/1	0.99	0.03	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3241	1/1	0.99	0.08	35,35,35,35	0
54	MG	2A	3281	1/1	0.99	0.06	39,39,39,39	0
54	MG	2a	3148	1/1	0.99	0.05	56,56,56,56	0
54	MG	2A	3525	1/1	0.99	0.09	40,40,40,40	0
54	MG	2A	3134	1/1	0.99	0.15	42,42,42,42	0
54	MG	1A	3675	1/1	0.99	0.03	43,43,43,43	0
54	MG	1A	3122	1/1	0.99	0.07	34,34,34,34	0
54	MG	1A	3460	1/1	0.99	0.03	31,31,31,31	0
54	MG	1A	3749	1/1	0.99	0.05	23,23,23,23	0
54	MG	2A	3067	1/1	0.99	0.13	37,37,37,37	0
54	MG	1A	3579	1/1	0.99	0.06	53,53,53,53	0
54	MG	1A	3114	1/1	0.99	0.16	33,33,33,33	0
54	MG	1A	3922	1/1	0.99	0.03	19,19,19,19	0
54	MG	1A	3462	1/1	0.99	0.04	49,49,49,49	0
54	MG	2A	3536	1/1	0.99	0.04	50,50,50,50	0
54	MG	1A	3124	1/1	0.99	0.10	26,26,26,26	0
54	MG	1A	3925	1/1	0.99	0.03	45,45,45,45	0
54	MG	1A	3065	1/1	0.99	0.05	34,34,34,34	0
54	MG	1A	3284	1/1	0.99	0.05	27,27,27,27	0
54	MG	2A	3296	1/1	0.99	0.04	43,43,43,43	0
54	MG	1A	3146	1/1	0.99	0.08	45,45,45,45	0
54	MG	1A	3796	1/1	0.99	0.04	21,21,21,21	0
54	MG	1A	3349	1/1	0.99	0.06	30,30,30,30	0
54	MG	2A	3545	1/1	0.99	0.04	49,49,49,49	0
54	MG	2A	3300	1/1	0.99	0.03	39,39,39,39	0
54	MG	2A	3301	1/1	0.99	0.04	46,46,46,46	0
54	MG	1A	3881	1/1	0.99	0.03	54,54,54,54	0
54	MG	1A	3932	1/1	0.99	0.06	51,51,51,51	0
54	MG	2a	3174	1/1	0.99	0.04	59,59,59,59	0
54	MG	1A	3525	1/1	0.99	0.06	27,27,27,27	0
54	MG	1a	1651	1/1	0.99	0.09	53,53,53,53	0
54	MG	2A	3227	1/1	0.99	0.04	35,35,35,35	0
54	MG	15	103	1/1	0.99	0.17	24,24,24,24	0
54	MG	1B	218	1/1	0.99	0.06	39,39,39,39	0
54	MG	1A	3934	1/1	0.99	0.03	50,50,50,50	0
54	MG	1A	3883	1/1	0.99	0.05	35,35,35,35	0
54	MG	1a	1856	1/1	0.99	0.04	59,59,59,59	0
54	MG	1A	3721	1/1	0.99	0.04	38,38,38,38	0
54	MG	1A	3840	1/1	0.99	0.05	51,51,51,51	0
54	MG	1A	3992	1/1	0.99	0.05	45,45,45,45	0
54	MG	1A	3468	1/1	0.99	0.04	31,31,31,31	0
54	MG	1A	3043	1/1	0.99	0.04	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1A	3940	1/1	0.99	0.05	51,51,51,51	0
54	MG	1A	3148	1/1	0.99	0.10	42,42,42,42	0
54	MG	1Q	201	1/1	0.99	0.05	38,38,38,38	0
54	MG	1A	3942	1/1	0.99	0.03	54,54,54,54	0
54	MG	1A	3889	1/1	0.99	0.07	45,45,45,45	0
54	MG	1A	3048	1/1	0.99	0.06	26,26,26,26	0
54	MG	1A	3560	1/1	0.99	0.05	44,44,44,44	0
54	MG	1D	303	1/1	0.99	0.07	41,41,41,41	0
54	MG	1a	1603	1/1	0.99	0.06	50,50,50,50	0
54	MG	1A	3203	1/1	0.99	0.09	47,47,47,47	0
54	MG	1A	3446	1/1	0.99	0.04	35,35,35,35	0
54	MG	1A	3118	1/1	0.99	0.10	30,30,30,30	0
54	MG	1A	3235	1/1	0.99	0.14	33,33,33,33	0
54	MG	1A	3272	1/1	0.99	0.26	33,33,33,33	0
54	MG	1A	3176	1/1	0.99	0.07	37,37,37,37	0
54	MG	1A	3733	1/1	0.99	0.04	45,45,45,45	0
54	MG	2A	3109	1/1	0.99	0.09	36,36,36,36	0
54	MG	2A	3580	1/1	0.99	0.07	39,39,39,39	0
54	MG	2A	3581	1/1	0.99	0.08	43,43,43,43	0
54	MG	1a	1810	1/1	0.99	0.04	63,63,63,63	0
54	MG	2A	3414	1/1	0.99	0.07	44,44,44,44	0
54	MG	1U	201	1/1	0.99	0.15	35,35,35,35	0
54	MG	2A	3257	1/1	0.99	0.06	49,49,49,49	0
54	MG	1A	3111	1/1	0.99	0.04	43,43,43,43	0
54	MG	1A	3164	1/1	0.99	0.07	36,36,36,36	0
59	ZN	1Y	203	1/1	0.99	0.03	58,58,58,58	0
54	MG	1A	3296	1/1	0.99	0.04	22,22,22,22	0
59	ZN	15	109	1/1	0.99	0.03	52,52,52,52	0
54	MG	2A	3420	1/1	0.99	0.06	51,51,51,51	0
59	ZN	2Y	202	1/1	0.99	0.04	80,80,80,80	0
54	MG	1A	3634	1/1	0.99	0.12	34,34,34,34	0
59	ZN	25	104	1/1	0.99	0.03	65,65,65,65	0
59	ZN	26	501	1/1	0.99	0.03	64,64,64,64	0
59	ZN	29	501	1/1	0.99	0.04	72,72,72,72	0
54	MG	1A	3903	1/1	0.99	0.06	42,42,42,42	0
54	MG	1A	3009	1/1	0.99	0.06	35,35,35,35	0
54	MG	1E	301	1/1	0.99	0.06	34,34,34,34	0
54	MG	1A	3851	1/1	1.00	0.05	28,28,28,28	0
59	ZN	16	501	1/1	1.00	0.05	48,48,48,48	0
59	ZN	19	103	1/1	1.00	0.05	49,49,49,49	0
54	MG	1A	3491	1/1	1.00	0.03	51,51,51,51	0
54	MG	1A	3242	1/1	1.00	0.07	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
54	MG	1a	1741	1/1	1.00	0.08	45,45,45,45	0

6.5 Other polymers [i](#)

There are no such residues in this entry.